

Alliance for Water Stewardship Assessment Report  
as per AWS Standard Version 2.0

For

APCB Electronics (Kunshan) Co.,Ltd.

No.1818 Jin-Sha-Jiang North Road, Economic  
Technical Development Zone, Kunshan City,  
Jiangsu Province

Prepared by: TÜV Rheinland

Cert. Number: AWS-000122

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## 1. Client and Certification Details

<b>Client Name:</b>	APCB Electronics (Kunshan) Co.,Ltd.
<b>Audit location:</b>	No.1818 Jin-Sha-Jiang North Road, Economic Technical Development Zone, Kunshan City, Jiangsu Province
<b>Country:</b>	China
<b>Activities/Processes:</b>	PCB(Printed circuit board)
<b>Contact person:</b>	Mr. Liang You Xuan
<b>Contact email:</b>	MD03@apcb-ks.com
<b>Company website:</b>	<a href="http://www.apcb.com.cn/">http://www.apcb.com.cn/</a>
<b>AWS Reference Number:</b>	AWS-000122
<b>Type of audit:</b>	Recertification Assessment
<b>Audit date(s):</b>	December 6-7, 2021
<b>Audit Standard:</b>	V2.0
<b>Proposed date of next audit:</b>	December 6, 2022
<b>Audit report completed by:</b>	Lingyun Yu, Layla Chen
<b>Contact email:</b>	Lingyun.yu@tuv.com, Layla.chen@tuv.com

## 2. Executive Summary

The scope of service covers the conformity assessment of water management and usage for APCB Electronics (Kunshan) Co.,Ltd. (hereinafter referred to as 'APCB'). The assessment was completed in compliance with the AWS Standard Version 2.0 dated in Mar 2019.

The APCB Electronics (Kunshan) Co.,LTD is a PCB manufacturer, producing PCB for broad industrial use, such as camera module board, TFT-LCD board, Rigid-flex board etc.. The whole facility occupied area is 50,287 square meters, currently it has about 3000 employees. The annual production capacity is about 140,000 square meter PCB. The main production process is cutting-drilling-exposure-etching- multiband-pressing-electronic plate-pattern transfer-etching-solder mask-surface treatment-molding-testing-packing. The site only uses municipal water for production. And it owns and operates a wastewater treatment plant. The wastewater will be discharged into the water body after treatment. Around the site are some factories and a small river. The nearest residence is about 400 meters away from the factory.

On December 6-7 2021, TÜV Rheinland conducted the on-site conformity assessment for APCB's facilities and activities as per requirement of the AWS Standard (Version 2.0). During the audit, a half-day stakeholder meeting was held on 7 December 2021. 6 stakeholders participated in the meeting covering suppliers, employee, resident etc.

The factory obtained a core level certificate 3 years ago. TÜV Rheinland also performed an evaluation for APCB's performance against the AWS advance criteria. The score of the evaluation is 45 points, which fulfills AWS Gold-level requirement.

Findings summary:

- Total: 6
- Major non-conformities 0
- Minor non-conformities 4
- Observation 2

Client's response:

APCB responded to the findings raised with root cause analysis and action plans. It is confirmed that all corrective action plans are acceptable.

Certification level: Gold

After thorough evaluation of the non-conformance, in compliance with the AWS Certification Requirement V2.0. TÜV Rheinland auditor team would recommend to reward APCB AWS Gold Certified status. Surveillance audit should be conducted on an annual basis.

### 3. Scope of Assessment

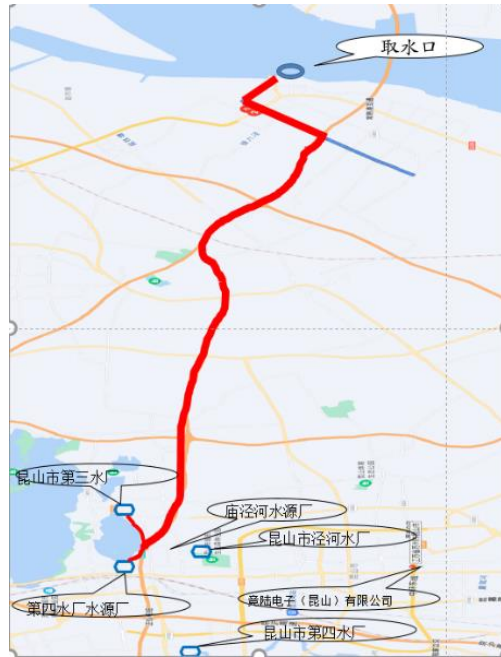
Client factories main products	PCB(Printed Circuit Board)
Client factories production processes	Cutting-drilling-exposure-etching- multiband-pressing-electronic plate-pattern transfer-etching-solder mask-surface treatment-molding-testing-packing
Assessment preparations activities include:	Document review, stakeholder comments collecting
Assessment on-site activities includes:	Document review, management interview, employee interview, onsite tour
Assessment follow-up activities includes (in any):	Non-conformity follow up

	
Hazardous waste warehouse	Hazardous waste warehouse
	
Rainwater Drainage	Chemical Warehouse

	
<p>Chemical tank area</p>	<p>Wastewater Treatment Plant</p>
	
<p>Wastewater final discharge point</p>	<p>Online wastewater monitoring system</p>

#### 4. Description of the Catchment

APCB Electronics(Kunshan) Co.,LTD is located in the Kunshan City, southeast part of the Jiangsu Province. The site is in the area of the Wusong river catchment. The Wusong river is an important river in the Jiangsu Province, which originates from the Lake Taihu and flows to the Shanghai then into the sea. The site emits the wastewater into the Lou River, and then flow to Taicangtang River, and flow into Yangzte river. The site only uses the municipal water. The water is mainly from two sources, one is from Kuilei Lake, which is small branch of the Lake Taihu. Another one is Yangtze River, the extraction point is on the upstream of the emission point.



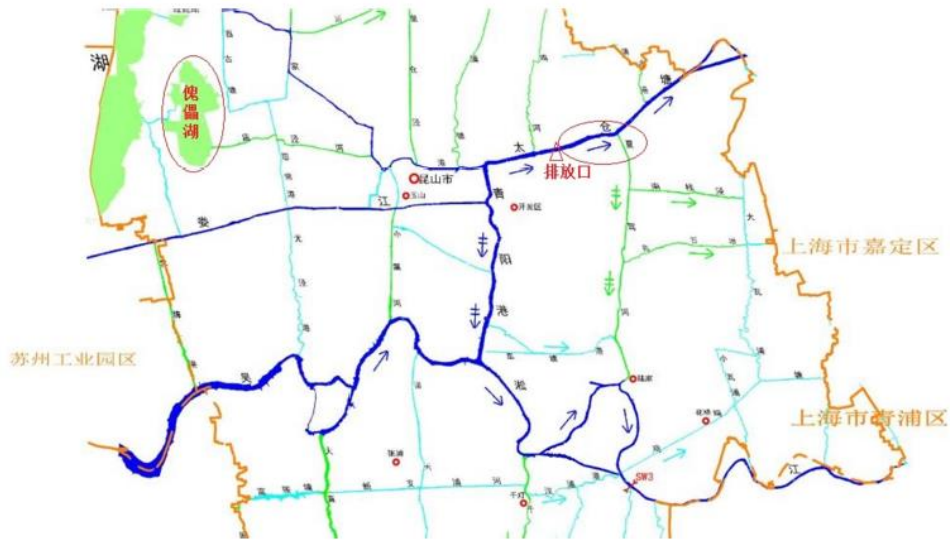


Figure 1: Municipal wastewater treatment plant, discharged point, water source, discharge point and catchment map

## 5. Summary of the Stakeholder meeting

Stakeholder name	Stakeholder type	Summary
Mr. Wang	Employee	APCB conducted meeting, questionnaires, posters and etc. on AWS knowledge to motivated the employee, and raised their awareness.
Mr. Song	Employee	
Mr. Tian	Supplier	They knew that the APCB implemented the AWS system, and they would join the activities conducted by the APCB. APCB will also investigate the water consumption of his factory. APCB requested the questionnaires filling to understand the water-related background and performance.
Mrs. Yu	Supplier	
Mr. Zhao	Neighbor community	APCB held some activities (such as questionnaires, home visits, posters, etc) to help them understand the water-related knowledge.
Mr. Sha	Neighbor factory	A smooth communication channel has established between two factories. Regular environmental issues including water will be discussed. Also, they will visit to each other for knowledge sharing



## 6. Summary of Shared Water Challenges

Water-related challenges	Initiatives by related public institutions	Relevance to stakeholders	Relevance to site	Priority	Reason for prioritization
High wastewater discharge standard	Kunshan Environmental Protection Bureau	Promote drainage water quality to meet standards and improve water quality of the catchment.	The sewage treatment facilities shall be updated and upgraded continuously, and ensure the normal operation of water treatment facilities.	High	Incompliance of the discharge permit may cause fine or production suspension.
Temporary limit on discharge	Kunshan Environmental Protection Bureau, 263 office	The water quality of the basin cannot meet the national and provincial requirements	Affect normal production, may cause delivery delay, affect the company's reputation.	High	Affect the production.
Regional PCB industry inspection	Kunshan Environmental Protection Bureau	Reduce the impact of water environment and improve the overall technological level of the industry	Carry out technical upgrade and equipment update.	High	The low efficient processing will be eliminated.
A few factory discharge illegally	Kunshan Environmental Protection Bureau	Causing water pollution in the catchment.	Affect the image of circuit board corporate plant, it may spread to the company, resulting in production.	Middle	More stringent inspection.
Restriction of annual water use of the factory in Wusong River Catchment	Kunshan Water Conservancy Bureau	Reduce water consumption and total wastewater discharge in the catchment.	Rational planning of water use, improvement of water reuse rate and saving water.	Middle	Affect the production capacity
Extreme event (natural disaster like earthquake, storm)	Kunshan Municipal Government	The infrastructure is damaged and cannot run properly	Restrict the company's production.	Low	Suspend of the production.

High water cost and environmental tax	Kunshan Environmental Protection Bureau, Kunshan city qiandeng water company	Reduce the impact on water environment by raising water price and environmental tax	Increased the company's production costs.	Low	Affect the economic performance of the company.
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## 7. Indicators Checklists

Per requirements set from the AWS certification requirements V2.0, below is a checklist of all the CORE AWS indicators. The documents reviewed/ processes reviewed are also indicated.

Criteria	Documents Reviewed
<b>STEP 1: Gather and Understand</b>	
<p>1.1 Define the physical scope:</p> <p>1.1.1 Map site boundaries;</p> <p>1.1.2 Water-related infrastructure, including piping network, owned or managed by the site or its parent organization</p> <p>1.1.3 Any water sources providing water to the site that are owned or managed by the site or its parent organization</p> <p>1.1.4 Water service provider (if applicable) and its ultimate water source</p> <p>1.1.5 Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies</p> <p>1.1.6 Catchment(s) that the site affect(s) and is reliant upon for water</p>	<p><input checked="" type="checkbox"/> Documentation or map of the site's boundaries</p> <p><input checked="" type="checkbox"/> Names and location of water sources</p> <p><input checked="" type="checkbox"/> Names and location of effluent discharge points</p> <p><input type="checkbox"/> Other :</p> <p>APCB draws a site boundary map, which identifies the site boundary information and the layout within the site. APCB collects information on the destination of its wastewater discharge, the location of the receiving water body, the location of water service providers and their water sources.</p> <p>Evidences: Map of the site's boundaries; Drainage and water supply pipeline diagrams</p>
<p>1.2 Understand relevant stakeholders:</p> <p>1.2.1 Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified</p> <p>1.2.2 Current and potential degree of influence between site and stakeholder shall be identified</p>	<p><input checked="" type="checkbox"/> List of stakeholders</p> <p><input checked="" type="checkbox"/> Water-related challenges</p> <p><input checked="" type="checkbox"/> Current and potential degree of influence</p> <p><input type="checkbox"/> Other :</p> <p>APCB has established a stakeholder engagement procedure and identified stakeholders such as the government, employees, NGOs, surrounding residents, suppliers, infrastructures, and surrounding companies.</p> <p>Influence and interest of stakeholders were evaluated as well.</p> <p>Evidences: List of Stakeholders</p>

1.3 Gather water-related data for the site:

- 1.3.1 Existing water-related incident response plans
- 1.3.2 Site water balance, including inflows, losses, storage, and outflows
- 1.3.3 Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates. An indication of annual high and low variances shall be quantified for risky water-related challenge
- 1.3.4 Water quality of the site's water source(s), provided waters, effluent and receiving water bodies. An indication of annual, and where appropriate, seasonal, high and low variances shall be quantified for risky water-related challenge
- 1.3.5 Potential sources of pollution, including chemicals used or stored on site
- 1.3.6 Mapping on-site Important Water-Related Areas, including a description of their status including Indigenous cultural values
- 1.3.7 Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value
- 1.3.8 Levels of access and adequacy of WASH at the site

- Water-related incident response plans
- Site water balance (in Mm<sup>3</sup> or m<sup>3</sup>)
- Water quality of the site's water source(s), provided waters, effluent and receiving water bodies, such as water test reports
- Other :

APCB has established a set of environmental emergency response plans, covering special emergency plans for chemical leakage, extreme weather, and wastewater accident discharge. APCB has formulated the "Management Procedures for Escalation of Operational Activities", which includes measures to deal with abnormal situations of municipal water supply.

APCB pays attention to the water quality of its water sources, supply water and wastewater.

APCB collects the quality of the supply water from the website of the water supply infrastructure. APCB obtains water quality information in the basin by consulting the Kunshan City Water Quality Bulletin in 2020, including the water quality of the water source (Kuilei Lake, which meets the Class 3 water quality standards for surface water); And collects the quarterly water quality of the water sources (Puppet Lake, the water source of the Yangtze River) by querying the official website of the Kunshan Municipal Health Commission.

APCB provides employees with "direct drinking water" and conducts water quality monitoring on each direct drinking water machine every year.

APCB has installed the online monitoring system to monitor the discharged water, and conduct routine internal and external testing to control the quality of discharged water.

APCB maps potential pollution sources, and no IWRAS identified in the site.

APCB also conducts WBCSD self-assessment to evaluate the level of onsite WASH.

**Minor non-conformities:**

1.3.2 The site did not identify the collection of rainwater and steam condensate in the water balance analysis

Criteria	Documents Reviewed
	<p>1.3.4 The site has not established a process to quantify the water quality of the receiving water body of its industrial wastewater on a regular basis</p> <p>1.3.7 The water-related costs of the site are incomplete, it does not include: sludge treatment, waste liquid treatment, water quality monitoring, water management and other related expenses</p> <p>Evidences:            Environmental Emergency Response Plans (registered, 320583-2020-0048-M), Management Procedures for Escalation of Operational Activities (T-6-2-610-B000), Water balance diagram (2020), Industrial wastewater monitoring plan, Communiqué on the Water Quality of Kunshan City in 2020, Water quality monitoring records, Map of Potential Pollution source</p>
<p>1.4 Gather data on the site's indirect water use:</p> <p>1.4.1 The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment</p> <p>1.4.2 The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified</p>	<p><input checked="" type="checkbox"/> List of primary inputs</p> <p><input checked="" type="checkbox"/> List of outsourced services</p> <p><input type="checkbox"/> Other :</p> <p>APCB has screened and identified the main suppliers and outsourced services, and then sent the questionnaires to investigate their indirect water consumption</p> <p><b>Minor non-conformities:</b>            The site has not established a verification rule for the water risk at the location of the site's raw material suppliers.</p> <p>Evidences:            Supplier and outsourced services questionnaires,</p>

Criteria	Documents Reviewed
<p>1.5 Gather water-related data for the catchment:</p> <p>1.5.1 Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action</p> <p>1.5.2 Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights</p> <p>1.5.3 The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance</p> <p>1.5.4 Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified</p> <p>1.5.5 Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement</p> <p>1.5.6 Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events</p> <p>1.5.7 The adequacy of available WASH services within the catchment</p>	<p><input checked="" type="checkbox"/> Water governance initiatives</p> <p><input checked="" type="checkbox"/> Applicable water-related legal and regulatory requirements</p> <p><input checked="" type="checkbox"/> Catchment water balance (in Mm<sup>3</sup> or m<sup>3</sup>)</p> <p><input checked="" type="checkbox"/> Documentation identifying Important Water-Related Areas (IWRA)</p> <p><input type="checkbox"/> Other :</p> <p>The water-related incident response plans were established.</p> <p>The catchment water balance and quality were collected via the published resource and material.</p> <p>The chemical list is established including all the use chemicals.</p> <p>Important water-related areas were identified, including the wetland; the species special protect region and ecological park.</p> <p>The water-related cost, revenue of the site has been conducted.</p> <p>The level of WASH of the site has been collected.</p> <p>Evidences: Catchment report.</p>
<p>1.6 Understand current and future shared water challenges in the catchment:</p> <p>1.6.1 Shared water challenges shall be identified and prioritized from the information gathered</p> <p>1.6.2 Initiatives to address shared water challenges</p>	<p><input checked="" type="checkbox"/> List of shared water challenges</p> <p><input type="checkbox"/> Other :</p> <p>The water challenges were listed and prioritized, based on the stakeholder's feedback and internal assessment, such as government restriction and the improvement of the local water environment.</p> <p>Evidences: List of shared water challenges.</p>

Criteria	Documents Reviewed
<p>1.7 Understand the site's water risks and opportunities:</p> <p>1.7.1 Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact</p> <p>1.7.2 Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities</p>	<p><input checked="" type="checkbox"/> List of water risks facing the site</p> <p><input checked="" type="checkbox"/> List of water-related opportunities</p> <p><input type="checkbox"/> Other :</p> <p>APCB has identified its water risks covering water governance, natural disasters, reputation. Based on risk analysis, APCB has prioritized its water risks according to potential impact, likelihood within a given time and difficulty of detection. Water opportunities including government support, customer encouragement and self-improvement are also identified.</p> <p>Evidences: EHS risk and opportunity assessment analysis record</p>



Criteria	Documents Reviewed
<p>1.8 Understand best practice towards achieving AWS outcomes:</p> <p>1.8.1 Relevant catchment best practice for water governance</p> <p>1.8.2 Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use)</p> <p>1.8.3 Relevant sector and/or catchment best practice for water quality, including rationale for data source</p> <p>1.8.4 Relevant catchment best practice for site maintenance of Important Water-Related Areas</p> <p>1.8.5 Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services</p>	<p><input checked="" type="checkbox"/> Relevant catchment best practices</p> <p><input type="checkbox"/> Other :</p> <p>APCB has identified relevant catchment best practice for water governance, water balance, water quality and WASH.</p> <p>Best practice for water governance identified by APCB:</p> <ul style="list-style-type: none"> <li>- Implement AWS management on the site and carry out AWS certification;</li> <li>- Implement ISO 14001:2015 management system on site and carry out certification;</li> </ul> <p>Best practice for water balance identified by APCB:</p> <ul style="list-style-type: none"> <li>- Refer to the second-level (domestic advanced) standard for water consumption in the cleaner production audit conducted at the site in 2020</li> </ul> <p>Best practice for water quality identified by APCB:</p> <ul style="list-style-type: none"> <li>- Some pollutants in the discharged wastewater, such as copper, COD, nickel, ammonia nitrogen, and total phosphorus, are below the limit of the emission standard, and the monthly average limit of internal control is 60% of the emission permit.</li> </ul> <p>Best practice for WASH identified by APCB:</p> <ul style="list-style-type: none"> <li>- Overall score result corresponds to meeting at least 90% of Pledge requirements by using WBSCD self-assessment tool.</li> </ul> <p>Evidences:</p> <p>Best practice for water governance, water balance, water quality and WASH, including the benchmarking standard.</p>
<b>STEP 2: Commit</b>	

Criteria	Documents Reviewed
<p>2.1 Commit to water stewardship:</p> <p>2.1.1 A signed and publicly disclosed site statement OR organizational document</p>	<p><input checked="" type="checkbox"/> Statement</p> <p><input type="checkbox"/> Other :</p> <p>A water stewardship commitment to follow all the AWS core criteria has been signed by the general manager of APCB. The commitment has been displayed on APCB's website.</p> <p><a href="http://www.apcb.com.cn/file/2021%E5%B9%B4AWS%E7%BD%91%E4%B8%8A%E5%85%AC%E7%A4%BA%E6%9D%90%E6%96%99.pdf">http://www.apcb.com.cn/file/2021%E5%B9%B4AWS%E7%BD%91%E4%B8%8A%E5%85%AC%E7%A4%BA%E6%9D%90%E6%96%99.pdf</a></p> <p>Evidences: APCB Commitment to Water Stewardship</p>
<p>2.2 Develop and document a process to achieve and maintain legal and regulatory compliance:</p> <p>2.2.1 The system to maintain compliance obligations for water and wastewater management shall be identified</p>	<p><input checked="" type="checkbox"/> Documented description of system</p> <p><input type="checkbox"/> Other :</p> <p>APCB has established a procedure to ensure the operation of APCB to meet the provisions of relevant laws, regulations and other requirements.</p> <p>Evidences: Procedure for Compliance Evaluation of Laws and Other Requirements</p>
<p>2.3 Create a water stewardship strategy and plan:</p> <p>2.3.1 A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard</p> <p>2.3.2 A water stewardship plan shall be identified</p>	<p><input checked="" type="checkbox"/> Water stewardship strategy</p> <p><input checked="" type="checkbox"/> Water stewardship Plan</p> <p><input type="checkbox"/> Other :</p> <p>APCB has a water stewardship strategy that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with AWS Standard. this is stated in document of water stewardship policy.</p> <p>APCB formulates water stewardship plans annually, which cover all the requirements of clause 2.3.2 of standards.</p> <p>Evidences: APCB Water Stewardship Plans</p>

Criteria	Documents Reviewed
<p>2.4 Demonstrate the site's responsiveness and resilience to respond to water risks:</p> <p>2.4.1 A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies</p>	<p><input checked="" type="checkbox"/> Water risk mitigation plan</p> <p><input type="checkbox"/> Other :</p> <p>APCB has identified its water risks and formulated a water-related emergency plan, which has considered the "Kunshan City Water Supply Emergency Plan" and the "Kunshan City Water Pollution Emergency Plan"</p> <p>Evidences: Environmental Emergency Response Plans (registered, 320583-2020-0048-M), Management Procedures for Escalation of Operational Activities (T-6-2-610-B000)</p>
<b>STEP 3: Implement</b>	
<p>3.1 Implement plan to participate positively in catchment governance:</p> <p>3.1.1 Evidence that the site has supported good catchment governance</p> <p>3.1.2 Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.1</p>	<p><input checked="" type="checkbox"/> Good catchment governance evidence</p> <p><input checked="" type="checkbox"/> Identified measures</p> <p><input type="checkbox"/> Other :</p> <p>APCB actively cooperates with the supervision work of the supervision department (such as the Environmental Protection Bureau, the Work Safety Supervision Bureau, the Emergency Management Bureau, the Fire Brigade), and rectifies the problems found</p> <p>On June 25, 2021, APCB cooperated with government departments to carry out a joint emergency exercise (involving chemical leakage, emergency rescue in limited space of wastewater treatment facilities, etc.) in its plant area. The organizations participating in the exercise were: Development Zone Management Committee, Development Zone Safety and Environment Bureau, Kunshan City Emergency Management Department, Development Zone Water Affairs Bureau and other government departments, Kunshan City enterprise representatives, etc.</p> <p>APCB's sewage treatment facility is listed as a limited space on-site teaching site of Kunshan Development Zone</p> <p>Evidences: Records of APCB's participation in various meetings organized by government departments</p>

Criteria	Documents Reviewed
<p>3.2 Implement system to comply with water-related legal and regulatory requirements:</p> <p>3.2.1 A process to verify full legal and regulatory compliance</p> <p>3.2.2 Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples</p>	<p><input checked="" type="checkbox"/> Legal and regulatory compliance verification process</p> <p><input type="checkbox"/> Identified measures (if applicable)</p> <p><input type="checkbox"/> Other :</p> <p>APCB has established a procedure to ensure the operation of APCB to meet the provisions of relevant laws, regulations and other requirements. They also conducted the regularly review to assess the most updated regulations and its compliance status.</p> <p>Evidences:            Procedure for Compliance Evaluation of Laws and Other Requirements, Evaluation Report for Compliance with Laws and Regulations Issued and the follow up records of CAP</p>
<p>3.3 Implement plan to achieve site water balance targets:</p> <p>3.3.1 Status of progress towards meeting water balance targets set in the water stewardship plan</p> <p>3.3.2 Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce volumetric total use shall be implemented</p> <p>3.3.3 Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs</p>	<p><input checked="" type="checkbox"/> Status of progress</p> <p><input type="checkbox"/> Water use efficiency annual target (if applicable)</p> <p><input type="checkbox"/> Legally-binding documentation (if applicable)</p> <p><input type="checkbox"/> Other :</p> <p>APCB has formulated plans to reduce water consumption and improve water management, and follow up the progress of the plan.</p> <p>APCB has set its annual water consumption target and conducts monthly performance evaluations on the water consumption</p> <p>Evidences:            Water Stewardship Performance &amp; Plans, Monthly KPI evaluation records</p>

Criteria	Documents Reviewed
<p>3.4 Maintain or improve site water quality:</p> <p>3.4.1 Status of progress towards meeting water quality targets set in the water stewardship plan</p> <p>3.4.2 Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified</p>	<p><input checked="" type="checkbox"/> Status of progress</p> <p><input type="checkbox"/> Site's effluent best practice (if applicable)</p> <p><input type="checkbox"/> Other :</p> <p>The internal control standard of the monthly average limit of some pollutants in the discharged wastewater, such as copper, COD, nickel, ammonia nitrogen, and total phosphorus is 60% of the emission permit</p> <p>At present, the content of copper, COD, nickel, ammonia nitrogen, total phosphorus and other parameters in the wastewater discharged by APCB is less than 50% of the emission standard, and APCB enjoys the preferential policy of halving the environmental protection tax of Kunshan City</p> <p>Starting in 2018, the wastewater reuse rate of APCB has maintained around 50%.</p> <p>Evidences: Water testing report.</p>
<p>3.5 Implement plan to maintain or improve the site's and/or catchments IWRAs:</p> <p>3.5.1 Practices set in the water stewardship plan to maintain and/or enhance the site's IWRAs shall be implemented</p>	<p><input type="checkbox"/> Practices set in the water stewardship plan</p> <p><input type="checkbox"/> Other :</p> <p>There are no Important Water-Related Areas in the site. In addition, the site has little influence on the Important Water-Related Areas in the catchment.</p>
<p>3.6 Implement plan to provide access to WASH:</p> <p>3.6.1 Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified</p> <p>3.6.2 Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective</p>	<p><input checked="" type="checkbox"/> Evidence of site's provisions of WASH</p> <p><input type="checkbox"/> Evidence of site operations not affecting water rights of surrounding environment</p> <p><input type="checkbox"/> Other :</p> <p>APCB purchased the barrelled water for drinking water. APCB monitor the drinking water quality via checking their qualification from the government, and request the testing report of the drinking water to ensure that the water quality of the purchased bottled drinking water meets the drinking water quality standards. The site has provided sufficient sanitation facility in the workshop, and conducted the regular cleaning to ensure the hygiene of the site.</p> <p>Evidences: Drinking water testing report.</p>

Criteria	Documents Reviewed
<p>3.7 Implement plan to maintain or improve indirect water use within the catchment:</p> <p>3.7.1 List of suppliers and service providers, along with the actions they have taken as a result of the site's engagement relating to indirect water use</p> <p>3.7.2 Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified</p>	<p><input checked="" type="checkbox"/> List of suppliers and service providers</p> <p><input checked="" type="checkbox"/> Evidence of engagement with suppliers and service providers</p> <p><input type="checkbox"/> Other :</p> <p>APCB initiated a sustainable water management proposal for its major suppliers through emails, and collected the practices of suppliers to carry out sustainable water management through questionnaire surveys. A total of 12 suppliers were involved. All 12 companies have provided feedback, and a total of 6 suppliers have reported that they have carried out water management-related practices</p> <p>Evidences: Supplier water survey</p>
<p>3.8 Notify the owners of shared water-related infrastructure of any concerns:</p> <p>3.8.1 Evidence of engagement, and the key messages relayed with confirmation of receipt</p>	<p><input type="checkbox"/> Evidence of engagement</p> <p><input type="checkbox"/> Other :</p> <p>Through the WeChat public account "Kunshan Water", APCB conveyed its concerns on topics such as water quality, water balance, and emergency response to water supply infrastructure</p> <p>Evidences: Records of communication with water-related infrastructure owners</p>
<p>3.9 Implement actions to achieve best practice towards AWS outcomes:</p> <p>3.9.1 Actions towards achieving best practice, related to water governance</p> <p>3.9.2 Actions towards achieving best practice, related to targets in terms of water balance</p> <p>3.9.3 Actions towards achieving best practice, related to targets in terms of water quality</p> <p>3.9.4 Actions towards achieving best practice, related to targets in terms of the site's maintenance of IWRAs</p> <p>3.9.5 Actions towards achieving best practice, related to targets in terms of WASH</p>	<p><input checked="" type="checkbox"/> Actions related to water governance</p> <p><input checked="" type="checkbox"/> Actions related to water balance</p> <p><input checked="" type="checkbox"/> Actions related to water quality</p> <p><input type="checkbox"/> Actions related to IWRAs</p> <p><input checked="" type="checkbox"/> Actions related to WASH</p> <p><input type="checkbox"/> Other :</p> <p>APCB has collected the best practices for AWS outcomes, and established plans to achieve these outcomes. The actions, cost, benefit, responsible person, timeline and status are listed in plans, and the progress will be reviewed regularly.</p> <p>Evidences: Water Stewardship Performance &amp; Plans</p>
<b>STEP 4: Evaluate</b>	

Criteria	Documents Reviewed
<p>4.1 Evaluate the site's performance:</p> <p>4.1.1 Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated</p> <p>4.1.2 Value creation resulting from the water stewardship plan shall be evaluated</p> <p>4.1.3 The shared value benefits in the catchment shall be identified and where applicable, quantified</p>	<p><input checked="" type="checkbox"/> Performance against targets</p> <p><input checked="" type="checkbox"/> Value creation</p> <p><input type="checkbox"/> The shared value benefits (if applicable)</p> <p><input type="checkbox"/> Other :</p> <p>The company has conduct management review annually.</p> <p>In the management review, it evaluated the water stewardship performance in 2020 in five outcomes.</p> <p>Evidences: Performance review.</p>
<p>4.2 Evaluate the impacts of water-related emergency incidents:</p> <p>4.2.1 A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified</p>	<p><input checked="" type="checkbox"/> A written annual review and root-cause analysis</p> <p><input type="checkbox"/> Other :</p> <p>The emergency respond plan was established and registered by local bureau. The sites conducted the drill annually.</p> <p>The company has accident reporting and emergency response procedures.</p> <p>Evidences:</p> <p>Emergency respond plan.</p>
<p>4.3 Evaluate the stakeholders' consultation feedback:</p> <p>4.3.1 Consultation efforts with stakeholders on the site's water stewardship performance shall be identified</p>	<p><input checked="" type="checkbox"/> Stakeholder feedback</p> <p><input type="checkbox"/> Other :</p> <p>The site obtained the commentary from the supplier and the employee, the result was satisfied.</p> <p>Evidences:</p> <p>Stakeholder feedback</p>
<p>4.4 Evaluate and updated the site's water stewardship plan:</p> <p>4.4.1 The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified</p>	<p><input checked="" type="checkbox"/> Modification of water stewardship plan</p> <p><input type="checkbox"/> Other :</p> <p>The site updated the AWS Stewardship plan for 2020-2021.</p> <p>Evidences:</p> <p>APCB AWS Stewardship plan 2020-2021</p>

Criteria	Documents Reviewed
<b>STEP 5: Communication and Disclosure</b>	
<p>5.1 Disclose water-related internal governance of the site's management:</p> <p>5.1.1 The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed</p>	<p><input checked="" type="checkbox"/> Summary of governance</p> <p><input type="checkbox"/> Other :</p> <p>The site has disclosed the water-related governance and organization chart on the website.</p> <p>No change since last year.</p> <p>Evidences:</p> <p>Company Website</p> <p><a href="http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf">http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf</a></p>
<p>5.2 Communicate the water stewardship plan with relevant stakeholders:</p> <p>5.2.1 The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders</p>	<p><input checked="" type="checkbox"/> Documented evidence of communicating</p> <p><input type="checkbox"/> Other :</p> <p>The company has included AWS stewardship plan into the Corporate website.</p> <p>Evidences:</p> <p>Company Website</p> <p><a href="http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf">http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf</a></p>



Criteria	Documents Reviewed
<p>5.3 Disclose annual site water stewardship summary:</p> <p>5.3.1 A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum</p>	<p><input checked="" type="checkbox"/> Water stewardship performance summary</p> <p><input type="checkbox"/> Other :</p> <p>The site disclosed the water stewardship summary on the company website.</p> <p>Evidences:</p> <p>Company Website</p> <p><a href="http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf">http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf</a></p>
<p>5.4 Disclose efforts to collectively address shared water challenges:</p> <p>5.4.1 The site's shared water-related challenges and efforts made to address these challenges shall be disclosed</p> <p>5.4.2 Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified</p>	<p><input checked="" type="checkbox"/> Disclosure evidence</p> <p><input type="checkbox"/> Other :</p> <p>The site disclosed the effort to address shared water challenges on the stakeholder and supplier meeting and company website.</p> <p>Evidences:</p> <p>Company Website</p> <p><a href="http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf">http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf</a></p>

Criteria	Documents Reviewed
<p>5.5 Communicate transparency in water-related compliance:</p> <p>5.5.1 Any site water-related compliance violations and associated corrections shall be disclosed</p> <p>5.5.2 Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable</p> <p>5.5.3 Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed</p>	<p><input checked="" type="checkbox"/> List of water-related compliance violations with corresponding corrective actions</p> <p><input type="checkbox"/> Other :</p> <p>The site has a non-compliance reporting procedure, as per the search of the IPE platform, no violation record has been found in last year.</p> <p>Evidences:</p> <p>Company Website</p> <p><a href="http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf">http://www.apcb.com.tw/renzheng/%E7%AB%B6%E9%99%B8%E9%9B%BB%E5%AD%90_AWS%E5%9C%8B%E9%9A%9B%E5%8F%AF%E6%8C%81%E7%BA%8C%E6%B0%B4%E7%AE%A1%E7%90%86%E8%AA%8D%E8%AD%89(%E5%85%AC%E7%A4%BA).pdf</a></p>

### Advance indicators

Criteria	Evidences	Score
<p>2.1.2</p> <p>A statement that explicitly covers all requirements set out in Indicator 2.1.1 and is signed by the organization's senior-most executive or governance body and publicly disclosed shall be identified. (1 point)</p>	<p>A water stewardship commitment to follow all the AWS core criteria has been signed by the general manager of APCB. The commitment has been displayed on APCB's website.</p> <p><a href="http://www.apcb.com.cn/file/2021%E5%B9%B4AWS%E7%BD%91%E4%B8%8A%E5%85%AC%E7%A4%BA%E6%9D%90%E6%96%99.pdf">http://www.apcb.com.cn/file/2021%E5%B9%B4AWS%E7%BD%91%E4%B8%8A%E5%85%AC%E7%A4%BA%E6%9D%90%E6%96%99.pdf</a></p> <p>Evidences:</p> <p>APCB Commitment to Water Stewardship</p>	1
<p>2.3.3</p> <p>The site's partnership/water stewardship activities with other sites within the same catchment (which may or may not be under the same organisational ownership) shall be identified and described. (4 points)</p>	<p>APCB invited stakeholders in the catchment (including: surrounding enterprises, suppliers, residents, employees, wastewater treatment service providers) to share practical experience in water management</p> <p>Evidences:</p> <p>Records of the stakeholders meeting, December 2 2021</p>	4
<p>2.3.4</p>	<p>APCB works with APCB Electronics (Thailand) Co., Ltd. (another subsidiary of APCBGroup) which is located in Thailand, and shares the</p>	4

Criteria	Evidences	Score
<p>The site's partnership/water stewardship activities with other sites in another catchment(s) (either under same corporate structure or with another corporate site) shall be identified. (4 points)</p>	<p>experiences and knowledge during implementation of the AWS system.</p> <p>Evidences: Communication record with APCB Electronics (Thailand)</p>	
<p>3.1.3 Evidence of improvements in water governance capacity from a site-selected baseline date shall be identified. (2 points)</p>	<p>APCB implement AWS management on the site and carry out AWS certification.</p> <p>Evidences: Procedures and records established based on AWS standards</p>	2
<p>3.9.6 Achievement of identified best practice related to targets in terms of good water governance shall be quantified. (8 points)</p>	<p>APCB started to implement the AWS standard system in 2018 and achieved the AWS Core level. Currently, APCB implements sustainable water management in accordance with the AWS Gold Standard and is expected to obtain AWS Gold Certification.</p> <p>Evidences: Procedures and records established based on AWS standards</p>	8
<p>3.9.7 Achievement of identified best practice related to targets in terms of sustainable water balance shall be quantified. (8 points)</p>	<p>APCB has formulated plans to reduce water consumption and improve water management, and follow up the progress of the plan. APCB has set its annual water consumption target and conducts monthly performance evaluations on the water consumption Refer to the cleaner production audit conducted at the site in 2020, APCB has reached the second-level (domestic advanced) standard for water consumption</p> <p>Evidences: Water Stewardship Performance &amp; Plans, Monthly KPI evaluation records, cleaner production audit report 2020</p>	8
<p>3.9.8 Achievement of identified best practices related to targets in terms of water quality shall be quantified. (8 points)</p>	<p>Some pollutants in the discharged wastewater, such as copper, COD, nickel, ammonia nitrogen, and total phosphorus, are below the limit of the emission standard, and the monthly average limit of internal control is 60% of the emission permit</p> <p>At present, the content of copper, COD, nickel, ammonia nitrogen, total phosphorus and other parameters in the wastewater discharged by APCB is less than 50% of the emission standard, and APCB enjoys the preferential policy of halving the environmental protection tax of Kunshan City</p> <p>Evidences: Water testing report.</p>	8

<b>Criteria</b>	<b>Evidences</b>	<b>Score</b>
<p>3.9.12</p> <p>A list of collective action efforts, including the organizations involved, positions of responsible persons of other entities involved, and a description of the role played by the site shall be identified. (8-14 points)</p>	<p>On June 25, 2021, APCB cooperated with government departments to carry out a joint emergency exercise (involving chemical leakage, emergency rescue in limited space of wastewater treatment facilities, etc.) in its plant area. The organizations participating in the exercise were: Development Zone Management Committee, Development Zone Safety and Environment Bureau, Kunshan City Emergency Management Department, Development Zone Water Affairs Bureau and other government departments, Kunshan City enterprise representatives, etc.</p> <p>Signed a "jointly advance AWS system mutual assistance agreement" with a nearby company, and held an experience exchange meeting on sustainable water management</p> <p>Evidences: Records of APCB's participation in various meetings organized by government departments</p>	<p>10</p>
<b>Total</b>		<b>45</b>
<b>AWS Level</b>		<b>Gold</b>

### Assessment Non-conformities:

During audit, no major non-conformity was raised. Four non-conformities and two observations were identified.

### Minor non-conformities:

NO.	AWS Expectations	Description of non-conformity	Client's response and Documentation provided	Auditors' assessment
1	1.3.2	The site did not identify the collection of rainwater and steam condensate in the water balance analysis	<p>Root cause analysis:</p> <p>According to the previous water balance diagram, this water balance diagram is modified according to the actual data of our company, ignoring the collection of rainwater and steam condensate of our company</p> <p>Corrective actions:</p> <p>Comprehensively identify all water inflow and outflow of our company, and refine the water balance diagram of our company</p> <p>Proposed finished time:</p> <p>2022/1/17</p>	Accepted.
2	1.3.4	The site has not established a process to quantify the water quality of the receiving water body of its industrial wastewater on a regular basis	<p>Root cause analysis:</p> <p>Through network search and other methods, the water quality data of Taicangtang river in recent years are collected, and the river water quality near the discharge outlet has been measured in 2021, but specification is not established to standardize the sampling and detection of the receiving water body</p> <p>Corrective actions:</p> <p>Establish the specification according to the audit guidance requirement, regularly quantify water quality of the water body receiving industrial wastewater</p> <p>Proposed finished time:</p> <p>2022/1/17</p>	Accepted.
3	1.3.7	The water-related costs of the site are incomplete, it does not include: sludge treatment, waste liquid treatment, water quality monitoring, water management and other related expenses	<p>Root cause analysis:</p> <p>The main costs of purchasing tap water, pure water preparation and reclaimed water reuse are considered, while the costs of sludge treatment, waste liquid treatment, water quality monitoring and water management are ignored</p> <p>Corrective actions:</p> <p>Comprehensively identify the water related costs according to the audit guidance requirement, and</p>	Accepted.

			<p>increase the expenses related to sludge treatment, waste liquid treatment, water quality monitoring and water management</p> <p>Proposed finished time: 2022/1/23</p>	
4	1.4.1	<p>The site has not established a verification rule for the water risk at the location of the site's raw material supplier</p>	<p>Root cause analysis: The water risk of the raw material supplier's location is simply evaluated, and the verification basis is not given</p> <p>Corrective actions: According to the audit guidance requirement, establish the verification basis of water risk at the location of raw material suppliers for the site</p> <p>Proposed finished time: 2022/1/23</p>	Accepted.

**Observations:**

NO.	AWS Expectations	Description of non-conformity	Client's response and Documentation provided	Auditors' assessment
1	1.4.2	It is recommended to establish a process to check the water risks of the service providers of the site (such as: facility maintenance, wastewater treatment, waste treatment providers, etc.)	N/A	N/A
2	3.7.2	It is recommended to check the environmental violation records of suppliers and service providers, and if necessary, promote and track their rectification	N/A	N/A

## 8. Summary and Conclusion of the Assessment

In assessment of the water stewardship performance of the APCB Electronics (Kunshan) Co.,LTD., it is apparent that the sites put considerable effort to adopt the AWS standard into the management system.

Four minor non-conformities were identified in this audit. APCB has been requested to make some improvement plans to address the non-conformity to be fully compliant to the standard.

Two observation was issued during this audit. Auditors pointed out the areas that to be considered for improvement in the following implementation, however, no action is demanded during the audit cycle.

All evidences provided to TÜV Rheinland to address the non-conformity was reviewed and evaluated, to ensure the compliance to the AWS standard. All actions were accepted as sufficient to close the non-conformity. Therefore, all AWS core criteria are satisfied.

The advance-level criteria evaluation was performed and the score is 45 point, which fulfils the requirement of Gold Level (40 to 79 points).

In conclusion, APCB Electronics (Kunshan) Co.,LTD. met the AWS Standard Version 2.0 - Gold Level.