

TÜV Rheinland

Alliance for Water Stewardship Assessment Report
as per
AWS Standard Version 1.0
For
Kunshan Huachen Electronic CO.,LTD

Private-owned Business Industrial
Zone, Qiandeng Town, Kunshan City,
Juangsu Province, China.

Prepared by: TUV Rheinland

Cert. Number: AWS-010-INT-CAB-00-08-00015-0085

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Client and Certification Details:

Client Name:	Kunshan Huachen Electronic Co.,LTD
Audit location:	Private-owned Business Industrial Zone,Qiandeng Town,Kunshan City, Jiangsu Province, China
Country:	China
Activities/Processes:	PCB(Printed circuit board)
Contact person:	Mr. Li Guan Wu
Contact email:	Liguanwu2006@126.com
Company website:	http://www.kshuachen.com
AWS Reference Number:	AWS-010-INT-CAB-00-08-00015-0085
Type of audit:	Initial Audit
Audit date(s):	2019.01.04
Auditor Team:	Ian Jiang(Lead Auditor) Layla Chen(Local Auditor) Bill Pei(Local Auditor)
Audit Standard:	AWS Core
Proposed date of next audit:	2020.01.04
Audit report completed by:	Ian Jiang
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Executive Summary

The scope of service covers the conformity assessment of water management and usage for Kunshan Huachen Electronic Co. Ltd. The assessment was completed in compliance with the AWS Standard Version 1.0 dated on July 2015.

Kunshan Huachen Electronics Co. Ltd. is a PCB(Printed Circuit Board) manufacturer, mainly producing a variety of PCB products. It occupied about 10,000 square meters area for production, currently it has about 260 employees. 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 municipal wastewater treatment plant for further disposal. The site is located in an industrial zone and no residence nearby.

Findings summary:

- Total nine findings were raised during the audit, including one major non-conformity, four minor non-conformities and four observations.

Certification level:

After thorough evaluation of the non-conformance and observations, in compliance with the AWS Certification Requirement v1.0 TÜV Rheinland auditor team would recommend to reward Kunshan Huachen Electronic Co. Ltd. AWS Core Certified status. Surveillance audit should be conducted on an annual basis.

Scope of Assessment

Client factories main products	PCB(Printed Circuit Board)
Client factories production processes	cutting-drilling-exposure-etching- multiband-pressing-electronic transfer-etching-solder treatment-molding-testing-packing plate-pattern mask-surface
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

The site boundary and map



The area inside the red line is the site. The north, east and west side of the site is surrounded by a small river. The south side it next to another PCB manufacturer.

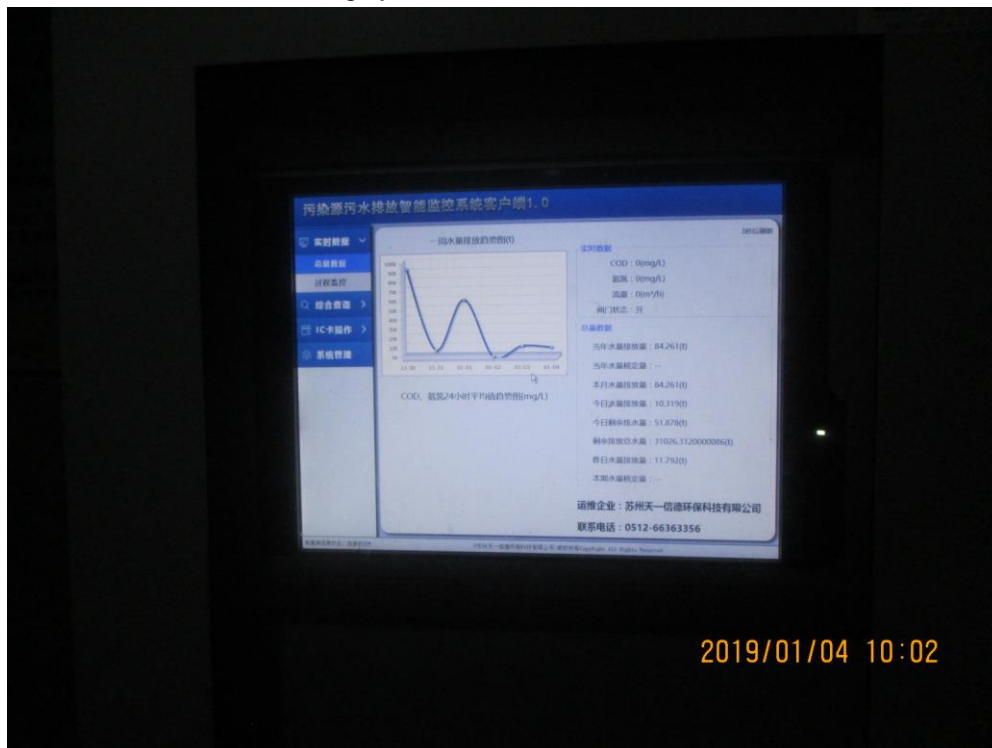
The main gate



Wastewater treatment plant layout



Online wastewater monitoring system



Rainwater discharge point



Surrounding river



Description of the Catchment

Kunshan Huachen Electronic Co. Ltd. is located in the Qiandeng Town, 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 Qian Deng Pu, and then flow to Wusong River, and finally flow into Shanghai and enter to sea. The site only uses the municipal water. The water is mainly from two resources, 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.



The catchment map. The circle in left side is Kuilei Lake, one of the water resource, and the one in right is emission point.

Stakeholder list, engagement and analysis.

Stakeholder name	Stakeholder type	Water-related challenge	Influence/to be influenced	engagement
Supplier	Supplier	1.Increasing cost due to rising cost of the water resource 2. Stringent discharge standard led to the increasing cost on wastewater treatment.	High/High	Communicate with Water stewardship commitment and Supplier questionnaires
Employee	Employee	1.Ensure the compliance of the wastewater 2.Reduce the water lost in the production process 3.Establish good working environmental, to avoid the hazard to employee's health	High/High	Training of water stewardship Routine communication during operation
Customer	Customer	1.Reduce the product cost 2.Demand for green product	High/Low	Communicate with Water stewardship commitment and
Kunshan Municipal Water Co., Ltd	Infrastructure	1.Water quality affect by the water resource quality	High/Low	No
Kunshan Environmental Bureau, Qiandeng Town Environmental office	Government	1.Monitor and manage the wastewater discharge situation 2.Monitor the water quality of the catchment and state section 3.Implement the regional water environmental plan.	High/Low	Regular meeting
Kunshan Qiandeng Torch Wastewater treatment Co., Ltd	Municipal wastewater treatment plant	1.Further disposal of site's pre-treated wastewater, to ensure the compliance of the wastewater. 2.Keep the incoming water stable.	High/Low	Collect the water quality data of final emission
Neighbour company	Neighbour company	The deterioration of the water quality may result suspend of the production.	Low/High	Water stewardship training and communication meeting
WWF	NGO	Improve the water quality of the catchment	Low/Low	Informal discussion
Cooperated University	Scholar	Improve the water efficient of the site	Low/Low	Training and consultation

Summary of shared Water Challenges

The plant has identified and prioritized the shared water challenges as below (1 is the highest):

Water challenge	Relevance	Prioritization
Extreme event (natural disaster like earthquake, storm)	Suspend of the production	3
High wastewater discharge standard	Incompliance of the discharge permit may cause fine or production suspension	1
Temporary limit on discharge	Affect the production	1
Regional PCB industry inspection	The low efficient processing will be eliminated	1
High water cost and environmental tax	Affect the economic performance of the company	3
A few factory discharge illegally	More stringent inspection	2
Restriction of annual water use of the factory in Wusong River Catchment	Affect the production capacity	2

Indicators Checklists

Per requirements set from the AWS certification requirements v1.0, below is a checklist of all the CORE AWS indicators. The documents reviewed/ processes reviewed are also indicated.

Clause	Expectations	Documents
COMMIT	1.1 Establish a leadership commitment on water stewardship: 1.1.1 Signed and publicly disclosed statement that explicitly covers all requirements	<input checked="" type="checkbox"/> Statement <input type="checkbox"/> Other : The commitment issued in 12 th Jan. 2018, signed by Mr. Meng/the President, is on company website.
	1.2 Develop a water stewardship policy: 1.2.1 Publicly available policy that meets all requirements	<input checked="" type="checkbox"/> Water stewardship policy <input type="checkbox"/> Other : The commitment issued in 12 th Jan. 2018, signed by Mr. Meng /the President, is on company website.
GATHER & UNDERSTAND	2.1 Define the physical scope: 2.1.1 Documentation or map of the site's boundaries 2.1.2 Names and location of water sources, including both water service provider (if applicable) and ultimate source water 2.1.3 Names and location of effluent discharge points, including both water service provider (if applicable) and ultimate receiving water body 2.1.4 Geographical description or map of the catchment(s)	<input checked="" type="checkbox"/> Documentation or map of the site's boundaries <input checked="" type="checkbox"/> Names and location of water sources <input checked="" type="checkbox"/> Names and location of effluent discharge points <input type="checkbox"/> Other : The documentation of the site boundaries, name and location of water sources, effluent discharge points are available and provided for review.
	2.2 Identify stakeholders, their water-related challenges and the site's sphere of Influence: 2.2.1 List of stakeholders, descriptions of prior engagements and summaries of their water-related challenges 2.2.2 Description of the site's sphere of influence	<input checked="" type="checkbox"/> List of stakeholders <input checked="" type="checkbox"/> Water-related challenges <input type="checkbox"/> Other : List of stakeholder was identified, and their influence and interest were evaluated as well.
	2.3 Gather water-related data for the catchment: 2.3.1 List of relevant aspects of catchment plan(s), significant publicly led initiatives and/or relevant water-related public policy goals for the site 2.3.2 List, and description of relevance, of all applicable water-related legal and regulatory	<input checked="" type="checkbox"/> Water-related public policy goals <input checked="" type="checkbox"/> Applicable water-related legal and regulatory requirements <input checked="" type="checkbox"/> Documentation identifying Important Water-Related Areas <input type="checkbox"/> Other : The catchment plan and relevant goals have

Clause	Expectations	Documents
	<p>requirements, including legally defined and customary water rights and water-use rights</p> <p>2.3.3 Catchment water balance by temporally relevant time unit and commentary on future supply and demand trends</p> <p>2.3.4 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site's water source(s) by temporally relevant time unit, and commentary on any anticipated future changes in water quality</p> <p>2.3.5 Documentation identifying Important Water-Related Areas, including a description of their current status and commentary on future trends</p> <p>2.3.6 Existing, publicly available reports or plans that assess water-related infrastructure, preferably with content exploring current and projected sufficiency to meet the needs of water uses in the catchment, and exposure to extreme events</p>	<p>been collected.</p> <p>Applicable laws and regulations were collected.</p> <p>The catchment water balance was collected via the published resource and material.</p> <p>Important water-related areas were identified, including the wetland; the species special protect region and ecological park.</p>
	<p>2.4 Gather water-related data for the site:</p> <p>2.4.1 Copies of existing water stewardship and incident response plans</p> <p>2.4.2 Site water balance (in Mm³ or m³) by temporally relevant time unit and water-use intensity metric (Mm³ or m³ per unit of production or service)</p> <p>2.4.3 Appropriate and credibly measured data to represent the physical, chemical and biological status of the site's direct and outsourced water effluent by temporally relevant time unit, and possible pollution sources (if noted)</p> <p>2.4.4 Inventory of all material water-related</p>	<p><input checked="" type="checkbox"/> Water stewardship and incident response plans</p> <p><input checked="" type="checkbox"/> Site water balance (in Mm³ or m³)</p> <p><input checked="" type="checkbox"/> physical, chemical and biological status of the site's direct and outsourced water effluent</p> <p><input type="checkbox"/> Other :</p> <p>The water stewardship and incident response plans</p> <p>The site water balance was measured and calculated.</p> <p>The data of the physical, chemical and biological status of the site's direct and outsourced water effluent has been collected.</p>

Clause	Expectations	Documents
	<p>chemicals used or stored on-site that are possible causes of water pollution</p> <p>2.4.5 Documentation identifying existing, or historic, onsite Important Water-Related Areas, including a description of their status</p> <p>2.4.6 List of annual water-related costs, revenues and description/quantification of social, environmental or economic value generated by the site to the catchment</p>	
	<p>2.5 Improve the site's understanding of its indirect water use:</p> <p>2.5.1 List of primary inputs with their associated embedded annual (or better) water use and (where known) their country/region/or catchment of origin with its level of water stress</p> <p>2.5.2 List of outsourced services that consume water or affect water quality and both (A) estimated annual (or better) water withdrawals listed by outsourced services (Mm3 or m3) and (B) appropriate and credibly measured data to represent the physical, chemical and biological status of the outsourced annual (or better) water effluent</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>The primary inputs were listed, including the copper board, chemicals and inks etc..</p> <p>No outsource services in the site.</p>
	<p>2.6 Understand shared water-related challenges in the catchment:</p> <p>2.6.1 Prioritized and justified list of shared water challenges that also considers drivers and notes related to public-sector agency efforts</p>	<p><input checked="" type="checkbox"/> List of shared water challenges</p> <p><input type="checkbox"/> Other :</p> <p>The water challenges were listed, mainly the government restriction and the improvement of the local water environment.</p>
	<p>2.7 Understand and prioritize the site's water risks and opportunities:</p> <p>2.7.1 Prioritized list of water risks facing the site, noting severity of impact and likelihood within a given time frame</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>The water risks and opportunities were identified and evaluated.</p>

Clause	Expectations	Documents
	2.7.2 Prioritized list of water-related opportunities for the site 2.7.3 Estimate of potential savings/value creation	
PLAN	3.1 Develop a system that promotes and evaluates water-related legal compliance: 3.1.1 Documented description of system, including the processes to evaluate compliance and the names of those responsible and accountable for legal compliance	<input checked="" type="checkbox"/> Documented description of system <input type="checkbox"/> Other : The site established the written statement of the legal compliance system and assigned the responsible person.
	3.2 Create a site water stewardship strategy and plan: 3.2.1 Available water stewardship strategy 3.2.2 Available plan that meets all component requirements and addresses site risks, opportunities and stakeholder shared water challenges	<input checked="" type="checkbox"/> Water stewardship strategy <input checked="" type="checkbox"/> Plan <input type="checkbox"/> Other : The site has developed the Water stewardship strategy addressing the identified shared water challenges.
	3.3 Demonstrate responsiveness and resilience to water-related risks into the site's incident response plan: 3.3.1 A description of the site's efforts to be responsive and resilient to water-related issues and/or risks in an appropriate plan	<input checked="" type="checkbox"/> Description of the site's efforts <input type="checkbox"/> Other : The site developed the plan address the reduction of the water use and improvement the water quality.
	3.4 Notify the relevant (catchment) authority of the site's water stewardship plans: 3.4.1 Documented evidence of communicating the site's plan to the relevant catchment authority/agency	<input checked="" type="checkbox"/> Documented evidence of communicating <input type="checkbox"/> Other : The site communicated the plan with the local authority.
IMPLEMENT	4.1 Comply with water-related legal and regulatory requirements: 4.1.1 Documentation demonstrating compliance 4.1.2 (Catchments with stakeholders who have an unmet human right to safe drinking water and sanitation) Documentation of efforts to work with	<input checked="" type="checkbox"/> Water-related legal and regulatory requirements <input checked="" type="checkbox"/> Documents of efforts to work with relevant public sector agencies <input type="checkbox"/> Other : The applicable laws and regulations were

Clause	Expectations	Documents
	<p>relevant public sector agencies to fulfil human right to safe drinking water and sanitation.</p>	<p>collected. Based on research, 4 environmental violations were found. Two happened before 2014, and another two happened in 2016.</p> <p>Based on onsite visit, the site has serious default on the site about the hazardous waste management and anti-leaking measures.</p>
	<p>4.2 Maintain or improve site water balance:</p> <p>4.2.1 Measurement-based evidence showing that targets have been met</p> <p>4.2.2 (Water scarce catchments only) Evidence of continual decrease or best practice</p> <p>4.2.3 (Sites wishing to increase withdrawals in water scarce catchments only) Evidence of no net increase in water scarcity</p>	<p><input checked="" type="checkbox"/> Measurement-based evidence</p> <p><input type="checkbox"/> Evidence of continual decrease or best practice</p> <p><input type="checkbox"/> Evidence of no net increase in water scarcity</p> <p><input type="checkbox"/> Other :</p> <p>The site has implemented water saving projects to improve the water balance, including strength the water use control of processing, increase recycle water capacity, and multiple use of the water etc.</p> <p>Based on the document check, the water consumption per ton product was reduced compared with the same period in 2017.</p>
	<p>4.3 Maintain or improve site water quality:</p> <p>4.3.1 Measurement-based evidence showing that targets have been met</p> <p>4.3.2 (Water quality-stressed catchments only) Evidence of continual improvement or best practice</p> <p>4.3.3 (Sites wishing to increase effluent levels of water quality parameters of concern in water quality-stressed catchments only) Evidence of no net degradation in water quality in the catchment</p>	<p><input checked="" type="checkbox"/> Measurement-based evidence</p> <p><input type="checkbox"/> Evidence of continual decrease or best practice</p> <p><input type="checkbox"/> Evidence of no net degradation in water quality in the catchment</p> <p><input type="checkbox"/> Other :</p> <p>The site has implemented below measure to monitor the water quality: online testing system, manual testing, and third party testing. Based on the document, the effluent quality is in compliance with the legal requirements.</p> <p>Based on the search on the local water bureau, the water quality of the catchment is maintained in compliance with standard in 2017 and 2018.</p>

Clause	Expectations	Documents
	<p>4.4 Maintain or improve the status of the site's Important Water-Related Areas:</p> <p>4.4.1 Documented evidence showing that targets have been met</p> <p>4.4.2 (Degraded Important Water-Related Area catchments only) Evidence of continual improvement or best practice</p>	<p><input checked="" type="checkbox"/> Documented evidence</p> <p><input type="checkbox"/> Evidence of continual decrease or best practice</p> <p><input type="checkbox"/> Other :</p> <p>The site continuously pays attention to the IWRA including water supplier and municipal wastewater treatment plant. So far, the operation of them is normal.</p>
	<p>4.5 Participate positively in catchment governance:</p> <p>4.5.1 Documented evidence of the site's ongoing efforts to contribute to good catchment governance</p> <p>4.5.2 (Weak water governance catchments only) Evidence of continual improvement or best practice</p>	<p><input checked="" type="checkbox"/> Documented evidence</p> <p><input type="checkbox"/> Evidence of continual decrease or best practice</p> <p><input type="checkbox"/> Other :</p> <p>The site joined the meeting hold by local authority, and held the communication meeting with the surround factories, and provided training to their suppliers.</p>
	<p>4.6 Maintain or improve indirect water use within the catchment:</p> <p>4.6.1 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><input checked="" type="checkbox"/> List of suppliers and service providers</p> <p><input checked="" type="checkbox"/> List of actions</p> <p><input type="checkbox"/> Other :</p> <p>A list of suppliers, mainly raw materials and packing materials were provided for review.</p> <p>The site has conduct the water use investigation on the supplier, like questionnaires filling, to get an overview of the suppliers.</p>
	<p>4.7 Provide access to safe drinking water, adequate sanitation and hygiene awareness (WASH) for workers on-site:</p> <p>4.7.1 List of actions taken to provide workers access to safe water, effective sanitation and protective hygiene (WASH) on-site</p>	<p><input checked="" type="checkbox"/> List of suppliers and service providers</p> <p><input checked="" type="checkbox"/> List of actions</p> <p><input type="checkbox"/> Other :</p> <p>The site monitor the water quality via check the disclosed information of the water suppliers, also, the site has conducted potable water testing to ensure the safety of the water.</p> <p>However, the hygiene of the washroom is unsatisfied. No paper wrap or hand wash are provided, and no private door.</p>

Clause	Expectations	Documents
	4.8 Notify the owners of shared water-related infrastructure of any concerns: 4.8.1 List of individuals contacted and key messages relayed	<input checked="" type="checkbox"/> List of messages <input type="checkbox"/> Other : The site has reported the water management plan and concerns to the zone management authority
EVALUATE	5.1 Evaluate the site's water stewardship performance, risks and benefits in the catchment context: 5.1.1 Post-implementation data and narrative discussion of performance and context (including water risk) 5.1.2 Total amount of water-related costs, cost savings and value creation for the site based upon the actions outlined in 3.2 (drawn from data gathered in 2.4.6) 5.1.3 Updated data for indicator 2.4.7 on catchment shared value creation based upon the actions outlined in 3.2	<input checked="" type="checkbox"/> Total amount of water-related costs, cost savings <input type="checkbox"/> Other : The site introduced the AWS at the beginning of 2018, compared the performance between Jan. to Nov. of year 2017, the daily wastewater emission reduced about 22.4%.
	5.2 Evaluate water-related emergency incidents and extreme events: 5.2.1 Documented evidence (e.g., annual review and proposed measures)	<input checked="" type="checkbox"/> Documented evidence <input type="checkbox"/> Other : The emergency respond plan was established and registered by local bureau. The sites conducted the drill annually. The secondary containers were equipped to prevent accidently leak. Two holding tanks were constructed to cope with the malfunction of the wastewater treatment plant if any.
	5.3 Consult stakeholders on water-related performance: 5.3.1 Commentary by the identified stakeholders	<input checked="" type="checkbox"/> Commentary by the identified stakeholders <input type="checkbox"/> Other : The site obtained the commentary from the supplier and the employee, the result was satisfied.
	5.4 Update water stewardship and incident response plans: 5.4.1 Modifications to water stewardship and incident response plans incorporating relevant	<input checked="" type="checkbox"/> Relevant information <input type="checkbox"/> Other : The site adopted the AWS at the beginning of 2018, so this is not applicable, and it will be

Clause	Expectations	Documents
	information	follow in the surveillance audit.
COMMUNICATE & DISCLOSE	6.1 Disclose water-related internal governance: 6.1.1 Disclosed and publicly available summary of governance at the site, including those accountable for compliance with water-related laws and regulations	<input checked="" type="checkbox"/> Summary of governance <input type="checkbox"/> Other : The site has disclosed the water-related governance and organization chart on the website.
	6.2 Disclose annual site water stewardship performance: 6.2.1 Disclosed summary of site's water stewardship results	<input type="checkbox"/> Summary of results <input type="checkbox"/> Other : The site just introduced the AWS system in the beginning of the 2018, the annual review has not been reviewed. So no performance was disclosed.
	6.3 Disclose efforts to address shared water challenges: 6.3.1 Disclosed and publicly available description of shared challenges and summary of actions taken to engage stakeholders (including public-sector agencies)	<input checked="" type="checkbox"/> Publicly available description <input type="checkbox"/> Other : The site disclosed the effort to address shared water challenges on the stakeholder and supplier meeting.
	6.4 Drive transparency in water-related compliance: 6.4.1 Available list of water-related compliance violations with corresponding corrective actions	<input type="checkbox"/> List of water-related compliance violations with corresponding corrective actions <input type="checkbox"/> Other : The site didn't publish the corrective action.
	6.5 Increase awareness of water issues within the site: 6.5.1 Record of awareness efforts (dates and communication) and, if possible, level of awareness	<input checked="" type="checkbox"/> Record of awareness efforts (dates and communication) <input type="checkbox"/> Other : The site has implemented actions to raise the internal awareness of water issues, such as training, communication, bulletin.

Assessment Non-conformities:

During audit. One major-conformity, four minor non-conformities and four observations were identified.

Major-conformity

NO.	AWS Expectations	Description of non-conformity	Client's response and Documentation provided
1	4.1 Comply with water-related and legal regulatory requirements	The site has serious default on the management on hazardous waste, chemical storage and anti-leaking measures.	<p>Root cause analysis: The general management department is responsible for chemical and hazard waste storage and ant-leak management. The company obtained the ISO 14001 certificate, and the related policy was established. But the manpower of the department is insufficient, leading to poor onsite management.</p> <p>Corrective action: (1) Increase the manpower of the department. Increase the regulation and standard training of the related management and operation staff. Identify the area management and improvement responsible person. Adopt the routine and random inspection to strengthen onsite monitoring. (2) Require the chemical shall be stored in the designed area. The package of the solid chemical shall be intact, the liquid shall equip with secondary container. (3) Require the hazard waste storage shall be fulfill the regulation, to avoid the leaking during storage and transport. (4) Collect the wastewater of the screen washing and eyewash. Install and repair the epoxy floor level and coffer of the wastewater treatment plant.</p>

Minor non-conformities:

NO.	AWS Expectations	Description of non-conformity	Client's response and Documentation provided
1	2.2 List of stakeholders, descriptions of prior engagements and summaries of their water-related challenges	On the stakeholder list, the share water challenges of part of stakeholder were missed. Such as neighbor enterprises.	Root cause analysis: Didn't consider all of the stakeholders, so the share water-related challenges of the neighbor factory were missed. Corrective action: To have comprehensive communication with the missing stakeholders, and collect the share water-related challenges of the neighbour factories. Also improve the documentation of the communication record.
2	3.2 Create a site water stewardship strategy and plan	The water stewardship strategy and plan did not include the measure and monitor, the analysis of the cost/benefit was insufficient.	Root cause analysis: It's the first time that the site adopted The AWS system. We didn't fully understand this section of the standard. Some action plans are still being development, so the cost/benefit is not completely evaluated. Corrective action: 1. Add the content of evaluation and monitoring, also assign the responsible person. 2. Conduct in-depth analysis of the each initiative and add the detailed information of the costs and benefits in the plan.
3	4.7 Ensure appropriate access to safe water, effective sanitation and protective hygiene for all workers in all premises under the site's control.	The hygiene status of the washroom is unsatisfied. Such as no paper wrap and hand wash, and no privacy door.	Root cause analysis: Lack of deep understanding of this criteria, so fail to the consider the working hygiene and privacy. Corrective action: Arrange the responsible department to take the corrective action, including routine check, add the hygiene supplies, and install the privacy door.
4	6.4 Drive transparency in water-related compliance	In recently years, the site has four environmental violations, but they did not disclose the violation and corrective action.	Root cause analysis: The corrective action has been implemented. However, lacking of the awareness of information disclosure led to the related violations and corrective actions were not disclosed. Corrective action: Disclose all the violations and the corrective actions on the company website.

Observations:

NO.	AWS Expectation	Description	Client's response and Documentation provided(If any)
1	2.4.1	In the water balance map, data of the wastewater treatment and water recycle should be improved. (Use third party testing report as reference)	
2	2.3.1	Some water taps were leaking during onsite tour both in production and in domestic area.	
3	6.2	The site has not yet disclosed the annual water stewardship performance. Note: The site introduced the system in the middle of the year 2018, so the annual review has been conducted.	
.4	6.3	The site disclosed the effort to shared water challenge via stakeholder/supplier meeting. It is recommended that the site may use more openly method like disclosed via website, sustainability report etc.	

Good practise:

NO.	Description
1	The site applied some water saving measures. Currently the water-recycling rate is 55%, and the water consumption per product is relatively low. After the cleaning production assessment conducted by the authority, it can achieve the level 2 criteria.(Note level 1 is the highest standard)

Summary and Conclusion of the Assessment

In assessment of the water stewardship performance of the Kunshan Huachen Electronic Co. Ltd. , it is apparent that the sites put considerable effort to adopt the AWS standard into the management system.

One major non-conformity was raised during the assessment. The site has been requested to make an improvement plan to address the issues. The major non-conformity should be rectified in 90 days.

Four minor non-conformities was raised during the assessment. The site has been requested to make some improvement plan to address the Non-conformity to fully compliant to the standard.

Four observations were issued during this audit, auditors have 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 TUV 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.

In conclusion, the Kunshan Huachen Electronic Co. Ltd. met the AWS standard-Core Level.

Opportunity and Improvement

Because of the cultural characteristic, normally it is difficult to communicate with the external stakeholder about the water issue. However, in Kunshan City, the government aim to promote the concept and system of water stewardship. Giving the opportunity that the site could establish a formal communication channel with the neighbour factory and resident.

The site should also recommend to make a comprehensive plan, following the AWS guidance, with detail cost/analysis, implementation plan, routine examination and review, to truly evaluate the performance of the AWS system.



Appendix:

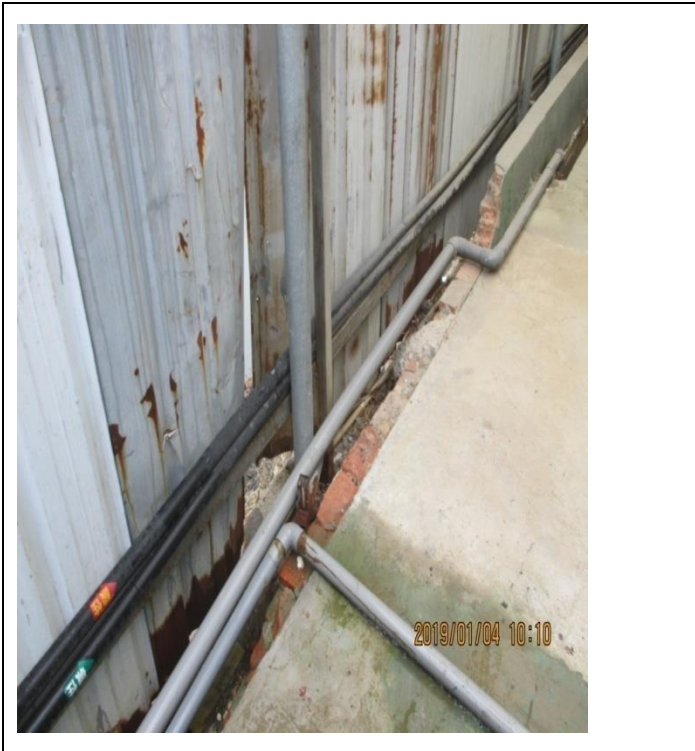
During the audit, five stakeholders were interviewed. Following is the summary.

Name	Stakeholder type	Summary of Feedback
Mr. Ni	Local resident	The facility communicated AWS standard to him through AWS meeting. However, he did not know the water management mechanism and achievement of the factory. He lives in Huayuan Village about 3km away from the factory. He knew the water quality of surrounding rivers has become better since the local government collects waste and cleans up surrounding rivers.
Mr. Liu	Employees	The factory boss communicated AWS to employees through morning meeting. Employees are required to save water. Wastewater cannot be underlying discharged. Acid leakage shall be collected and discharged to wastewater treatment plant. They control water volume during production. He did not know achievement of water management.
Mr. Yan	Employees	The factory boss communicated AWS to employees through morning meeting. There is toilet and shower in the dormitory room. No washing machine in the dormitory.
Mr. Ye From Hefei Tianzhiheng Electronic Technology Co., Ltd.	Customer	He have no idea about AWS, did not attend the AWS meeting. He hears the factory invest a lot to protect environment.
Mr. Sun From Kunshan City Qianden Town Xinhua Town Store	Supplier	The facility communicated AWS standard to him through AWS meeting. However, he did not remember the content of the AWS meeting. He hopes the factory gets better and better so they can keep long term business relationship. This is an industrial zone, only a few residents live around. He knew the water quality of surrounding rivers has become better in recent three years.

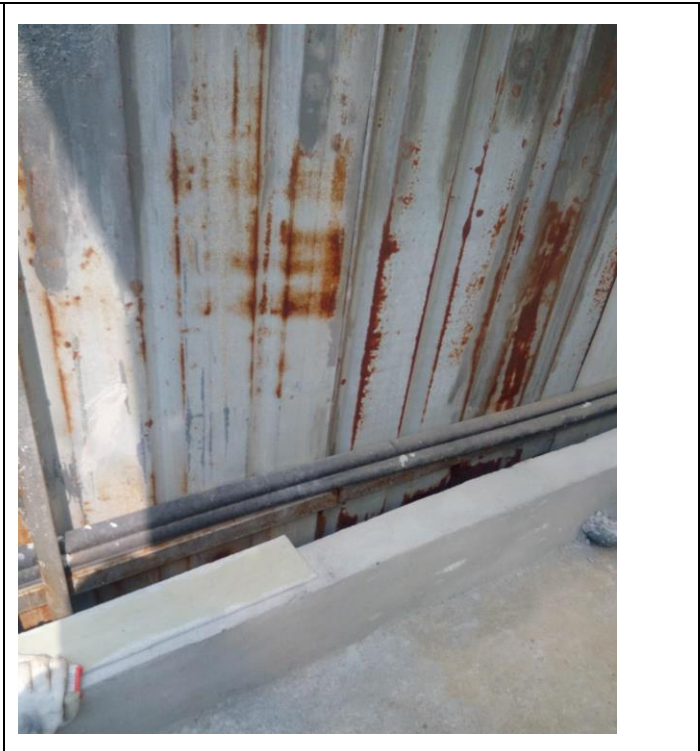
Appendix:

Corrective action photo of the major non-conformity.

 <p>2019/01/04 09:56</p>	
<p>Before: Some chemicals were stored on the ground directly.</p>	<p>After: The chemical is stored on the tray.</p>



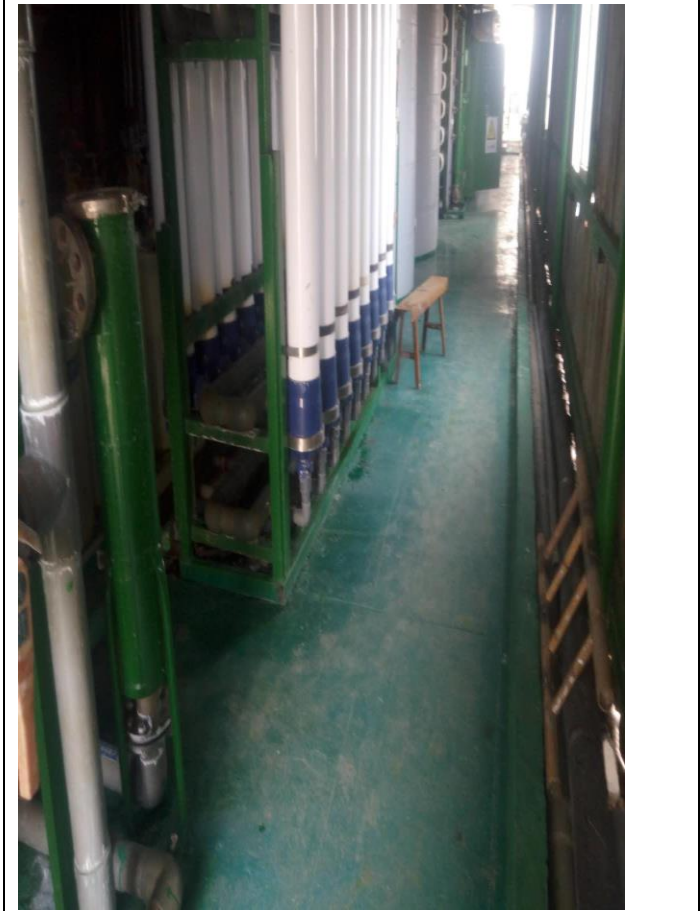
Before: The coffer was damaged in the wastewater treatment plant. Next was a small river.



After: The coffer is installed.



Before: The coffer was damaged in the wastewater treatment plant. Next was a small river.



After: Coffe and epoxy floor level are installed.



Before: The empty containers were too many, and some were stored outside the door.



After: Reasonable pile up the containers and transfer to qualify vendor in time.



Before: Some leaking on the ground.



After: The leaking is clear.



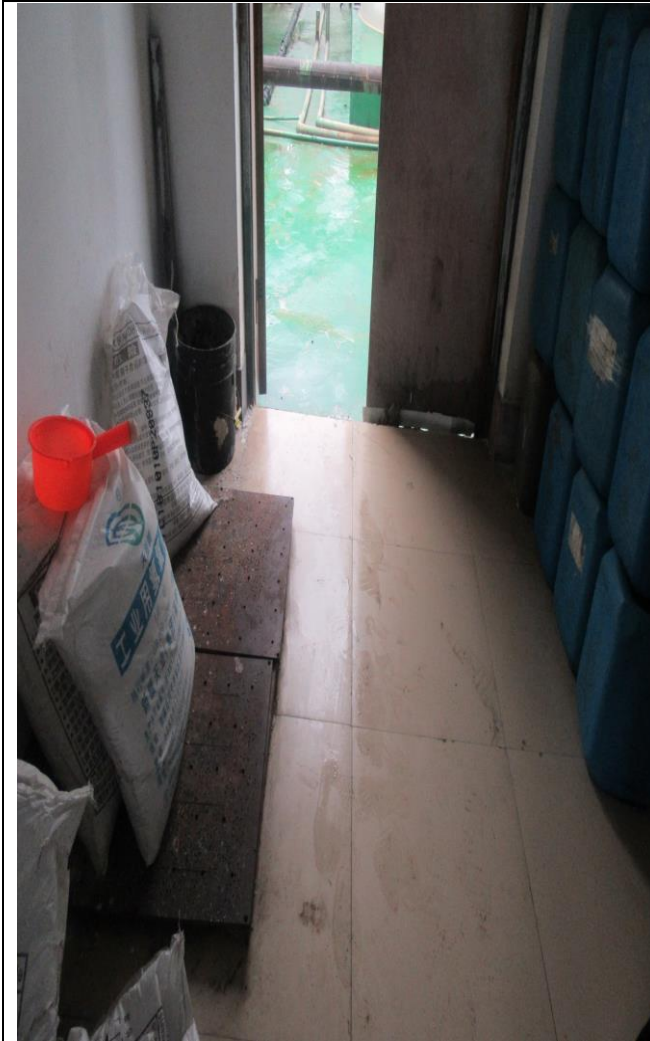
Before:
The pipeline in the screen washing room was damaged, and large amount of the wastewater was on the ground, resulting the leaking risk.

After: The pipeline is repaired, and remodify the room. The tray is used as secondary container.



Before: Roof rainwater pipeline was broken.

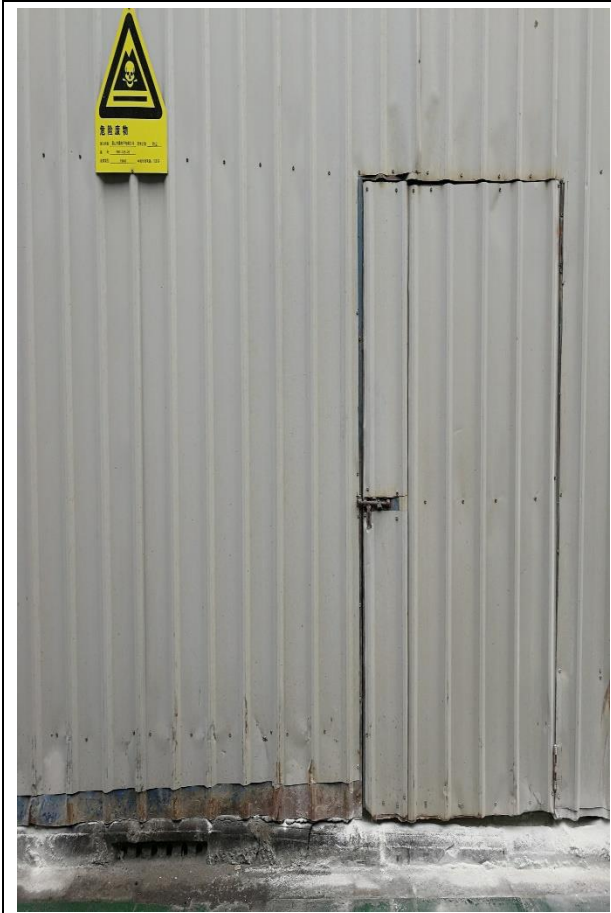
After: The pipeline is repaired.



Before: On the top of the building, the chemicals used for emission air treatment facility were put on the ground.



After: Trays are used as secondary containers.



Before: A lot of dust outside the dust storage area.



After: Coffe is installed and the dust is cleaned.



Before: The oily wastewater was leaking in the air-compressor.



After: The oil absorbent felt is equipped.



Before:



After:



Before: Garbage (including empty containers) was stored in the undersigned area.



After: The garbage is clean.



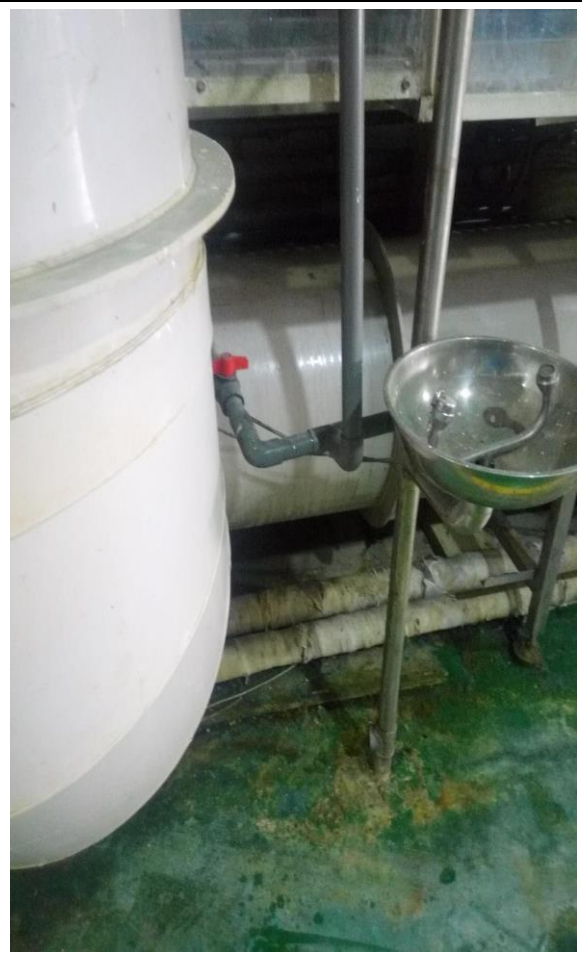
Before: The oil and kitchen leftover was on the ground.



After: The leftover is clean.



Before: The washing water of one eyewash would be discharged to the ground.



After: The washing water is discharged via the pipeline now.