OUCC 東聯化學股份有限公司
Oriental Union Chemical Corp.

ORIENTAL UNION CHEMICAL CORPORATION

2019

Corporate Social Responsibility Report

About this Report

Welcome to the 2019 Corporate Social Responsibility(CSR) Report of the Oriental Union Chemical Corporation (stock code:1710, hereinafter referred to as the "OUCC") published in 2020. We would like all the stakeholders that care about us to better understand the challenges of sustainable development faced by the chemical industry, as well as our efforts and achievements in CSR aspects.

- This CSR Report is issued in both Chinese and English versions. You are welcome to download them from our official website.
- Website: https://www.oucc.com.tw/

Reporting Period and Organizational Boundaries

The CSR Report discloses the CSR management policy, material topics, responses, and action performance of the OUCC in 2019(Jan. 1 to Dec. 31). Some issues tracing back to 2017 or 2018 have been included to ensure a comprehensive report of project performance and outcome.

The financial performance described in this report is from the data of the OUCC's individual financial statement. The environmental and social performance covers OUCC Headquarters and the Linyuan Plant, and will be indicated in the paragraph if the scope of disclosure differs from the above.

Writing Reference and Guarantee

The CSR Report relevant information and data composed and provided by the OUCC Taipei Headquarters and Linyuan Plant are ensured to meet the requirements. The relevant information, data, review, and data verification are documented, verified, and approved by each department head. The final issues and information are reviewed and authorized by the directors and top management. In terms of information accuracy, we also obtained the SGS-Taiwan guarantee to show our achievements in all aspects of CSR to the majority of stakeholders through the overall structure of the enterprise spirit of "sincerity, diligence, thrift, prudence and innovation".

Sustainability Report

- GRI Standards: Core Option
- AA1000 (2008) AS: Type I intermediate assurance level

Economy

- Regulations Governing the Preparation of Financial Reports by Securities Issuers
- ISO 9001

Environment

- ISO 14001
- ISO 14064-1
- ISO 50001

Society

- ISO 45001

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Date of next publication: June 2021

Feedback

If you have any comments on the "Oriental Union Chemical Corporation 2019 Corporate Social Responsibility Report," you are invited to forward your valuable comments and advice to keep us moving towards the concept of sustainable governance.

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CHAIRMAN'S MESSAGE

Welcome to the 2019 OUCC CSR Report. On the path to the sustainable development, Oriental Union Chemical Corporation (OUCC) upholds its governance philosophy "sincerity, diligence, thrift, prudence, and innovation". Amid the ever-changing environment, it pursues excellence at a steadfast pace, accrues its capital via innovative research and development, and exercises its obligation as a global corporate citizen via tangible actions.

Apart from plowing deep in the industry and elevating the fundamental competitiveness of its major products. OUCC embraces clients' needs at its core, committed to the R&D of Ethoxylates (EOD) and utilizing its innovative might to elevate values of its products applied in the fields of daily chemicals, textile dyeing, rubber, plastic, cement, papermaking, construction, polyurethane (PU), and electronics.

Aiming to realizing a green production, OUCC is dedicated to improvement of energy efficiency in production, reduction of wastes produced, and proactive management of resource consumption to reduce the environmental impact resulted from its operation. A safe, healthy working environment is built to ensure the safety and health of employees while striking a friendly balance among the enterprise, the society, and the environment.

In view of 2019, OUCC achieved several advancements as follows:

1. A circular economy was put into practice. The "potassium iodide (KI) recovery technology" of its own device turns "waste solution of KI" into a "usable renewable resource", which has changed the conventional linear economy strategy to the model of circular economy, creating additional economic values as a result.
2. A wastewater recycling system installed in Linyuan Plant is capable of recycling up to 70% of effluent for reuse and attaining the goal of sustainable use of water resource.

To construct the safest and healthiest working environment, aiming for "zero accident, zero injury, and zero pollution", OUCC implements the standard of ISO 14001 and completed the transfer to ISO 45001 occupational health and safety. With a sound mechanism for health and safety as well as the promotion and training for employees, the Linyuan Plant hit the record of 4.31 million safety man-hours in 2019.

In light of the COVID-19 pandemic outbreak earlier this year (2020), OUCC promptly activated its response mechanism. Aside from employee education, it also monitored closely the pandemic development as well as the operation on the plant in real-time via the digital information platform to adjust the production schedule flexibly, ensure its continual operation, and effectively safeguard the health and safety of the employees.

As a responsible corporate citizen, OUCC proactively links to the international sustainable trend in response to the UN SDGs. Also, with Chemical Sector SDG Roadmap as the compass, OUCC listens to various stakeholders across the world, industries, and communities and puts words into actions. We laid out all sorts of sustainable action plans and internalized such actions into the corporate governance and management so as to fulfill OUCC's promise to a sustainable development as well as its commitment to corporate social responsibility. OUCC shall ceaselessly march towards sustainability in pursuit of prosperity while join hands with industrial supply chains and community partners to achieve the goals of sustainable development. Meanwhile, your support and encouragement to us is much appreciated.

Chairman
Oriental Union Chemical Corporation

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The OUCC Sustainable Development Strategy

SDGs are the global principles for guiding sustainable development. As a corporate citizen, OUCC is one of the key drivers for the 2030 global blueprint on sustainability. The company has identified the sub-goals of SDGs as the first direction for improvement by understanding the idea of SDGs with reference to the "Chemical Sector SDGs Roadmap". This includes stakeholder's expectations and comprehensive risk analysis to discover all the relations between the 169 targets. OUCC is committed to ongoing development of innovative strategies, the adoption of internal goals on sustainable development, and plans for a sustainable future.

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Innovative OUCC

Keep up with the developing world, gain insight on trends with value, circular, R&D and process innovations as a foundation for sustainable development

Short-term Goal (2020)

- Continue to invest in R&D and actively develop high-quality and high value-added new EOD/POD product lines
- Increase sales of specialty chemical EO derivatives to maintain steady growth and profitability

Mid-/Long-term Goal (2025-2030)

- Continue to develop innovative technologies and develop new products with low energy consumption, environmental friendliness and high value
- Improve the advantages of existing products and enhance the sustainable competitiveness of the company

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Ethical Governance

With trust as vital parts of corporate culture, the company fully upholds the spirit of self-discipline in corporate governance by complying with all the relative laws and regulations as well as the application of robust internal control

Short-term Goal (2020)

- Established an information management backup mechanism
- Continues to propose solutions on key CSR issues

Mid-/Long-term Goal (2025-2030)

- Continue to improve internal risk management system
- Continue to enhance the CSR negotiation mechanism

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Diligent Partners

Uphold "Diligence refines all work, and founded as base", work together with suppliers to provide high-quality and reliable services, and to become a trustworthy company for both customers and partners

Solid Partnerships

Short-term Goal (2020)

- Conduct a survey for employees
- Conduct human rights training courses on seven major labor issues of the Responsible Business Alliance (RBA)
- Implement a new performance appraisal system

Mid-/Long-term Goal (2025-2030)

- Introduce a Talent Quality-Management System (TTQS)
- Conduct training courses in cooperation with the vocational training center

Satisfied Customers

Short-term Goal (2020)

- Obtained AEO certification
- Continue to perform internal audits and third-party external audits to effectively implement the ISO 9001 quality management system

Mid-/Long-term Goal (2025-2030)

- Continue to optimize control measures and improve customer satisfaction

Chemical Supply Chain

Short-term Goal (2020)

- 100% of new suppliers have signed the "Suppliers' CSR Commitments"
- Existing suppliers are included in the CSR commitment letter when the annual contract is renewed
- Existing suppliers have completed the on-site or written evaluation

Mid-/Long-term Goal (2025-2030)

- 100% of freight forwarders have acquired RSQAS certification
- Contractor's zero work safety accident, up to 990,000 safe working hours

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Solid Contributions

Committed to efforts to improve the environment, social integration, and sustainable future with faith taken from society and also by giving back to society, as well as with a "down to earth" attitude and "truthful" action

Short-term Goal (2020)

- Accumulated carbon reduction of 26,000 t-CO_2e
- Five years of accumulated electricity saving totaling 5%
- Daily water saving of 2%
- Wastewater recycling system with a recycling rate targeted at 70%
- Pass ISO 45001:2018 verification

Mid-/Long-term Goal (2025-2030)

- Accumulated electricity saving amount to 10%
- Daily water saving is 20%
- Continue to plan the promotion of energy-saving & carbon reduction program, and focus on the study of low-carbon or carbon-free heat application technology, as well as greenhouse gas storage technology

Inclusive Society Establishment

Short-term Goal (2020)

- Participate in blood donation activities
- Make donations to disadvantaged groups
- Volunteer services to social care

Mid-/Long-term Goal (2025-2030)

- Contribute to the society by using core competence, in line with the faith of "taken from society and feedback to society"

Prudent Thinking

Risk management is integrated with sustainable operations in various businesses with a concept of caution and safety. We are committed to a working environment of zero pollution, zero injury and zero accident

Short-term Goal (2020)

- Establish a waste removal and transportation platform
- Establish PI system, real-time monitoring of environmental protection data of each plant
- Continue to conduct emergency response training for all plants and suppliers
- Results of on-site inspections of the freight forwarder are listed as the allocation standard

Mid-/Long-term Goal (2025-2030)

- Promote waste management carbon reduction KPI to achieve carbon reduction goals
- Optimize prevention and control equipment, cooperate with regular self-inspection by exterior environmental protection institute, and optimize emission quality
- Build a notification platform for high-risk operations
- Construct a chemical plant that adheres to the concept of "zero pollution, zero injury, and zero accident"

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INNOVATIVE OUCC

OUCC has set the innovative goal of becoming “the top chemical company with the most unique features”, beginning from research and development, equipment production, market development, to application; through innovative technologies and thinking, we gradually accumulated our own technical capabilities and developed the high value-added ethylene oxide derivative products and specialty chemical products, step by step, the blueprint of OUCC’s green chemical business is drawn.

We would form specialized teams by integrating research and development, technology, operations and productions to suit the needs of different industries and clients. Also, we create an online information integration management platform to enhance horizontal communication between departments in order to expedite the commercialization of products, providing more complete technical service and well quality products to our customers.

The investment OUCC has put into research and development of innovative domain will enable OUCC to transform into a diversified chemical company specializing in specialty chemicals, that persistently pursues profits and growth, and becoming a green enterprise that is sustainable and environmental.

2019 Sustainable Performance

- Promote circular economy
  to generate profit of NT$**22.24** million per year
- R&D investment of NT$ **160** million
- **Various innovative technologies**
  have been developed and applications made
  for international patents

Implementing the Circular Economy

OUCC continues to strengthen green production and high-value arrangements. Besides proactively developing various high-value EOD products and maintaining the balance between chemical production development and environmental protection, we also continue to improve production procedures and invest in equipment, promote the innovation of circular economy and re-manufacture the recycled waste, with the thinking of green circular production, and therefore decrease the impact of production on the environment.

New Business Model: The Circular Economy

According to a foreign study, the global population will increase by 1.1 billion people, and the population of the middle class will reach 3 billion by 2025. To meet the the consumption needs of the increased population, the demand for raw materials for food, steel, and plastic products will double. Together with challenges of environmental and climate change, global natural resources will become increasingly scarce.

OUCC realizes the urgency and severity of the lack of natural resources, and believes that "circular economy" will be one of the keys to supporting the next generation of economic development. Through technological innovation, we expect to implement the core concept of circular economy, "minimizing environmental impacts, maximizing value of resources", in the production procedures to reduce the waste of resources, and to increase the proportion of reusable materials in order to reduce the impact on the industry.

Thinking / Item	Traditional Thinking	Circular Economy Thinking
Process	EC process → KI waste liquid Outsourcing	EC process → KI waste liquid → Reuse resources → Invest in a new process
Description	In the production of ethylene carbonate (EC), potassium iodide (KI) is used as a reaction catalyst, and the waste liquid produced during the production process contains 5% potassium iodide (KI), and in the past, the treatment of the waste liquid were outsourced.	Increase the concentration of potassium iodide (KI) produced in the ethylene carbonate (EC) plant, upgrade it into a product of reusable resource, and reuse it in another production process.
Outsourcing costs	NT$8 million per year	NA
Economy benefist	NA	1. Save KI procurement costs NT$4.49 million. 2. MEG recycling, benefit about NT$5.57 million. 3. Save about NT$12.18 million for outsourcing.
Total	outsourcing processing costs NT$8 million	Benefits NT$22.241 million
Envirnmont benefits	NA	1. Reduce energy usage and carbon emissions from waste liquid transportation 2. Reduce the environmental impact caused by waste liquid leakage
Society benefits	NA	1. The income generated from reusing the byproduct is used to upgrade the employees' occupational health and safety and welfare. 2. It decreases the risk of leakage from the transportation of waste liquid, which protects the safety of community residents (such as causing skin rashes).

Note: Based on an estimated ethylene carbonate (EC) capacity of 60,000 tons/year, the company has been producing 400 tons of potassium iodide (KI) waste liquid per year, with an outsourcing cost of approximately NT$8 million per year.

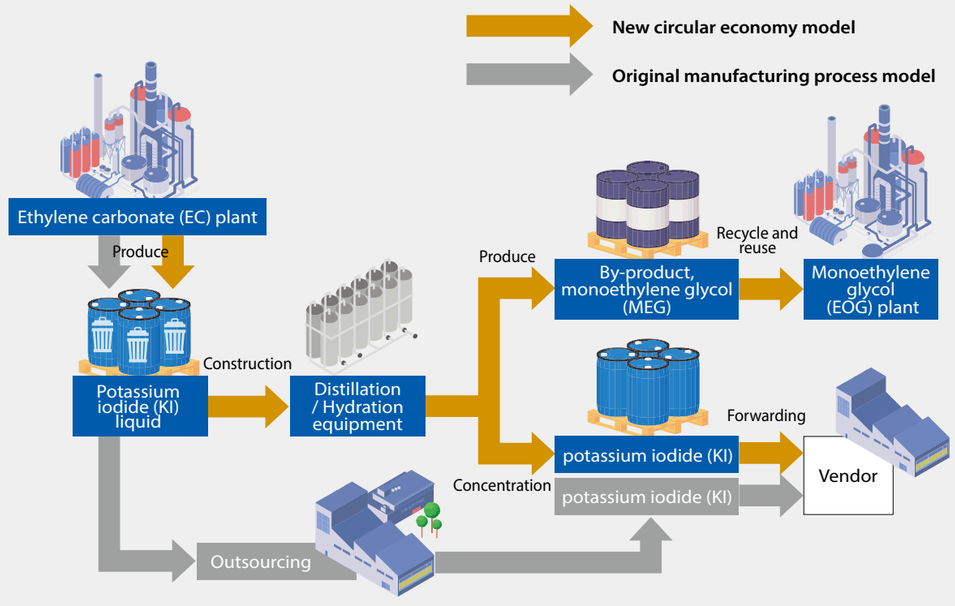
To build circular economy model, we develop a sustainable cycle of "resources-products-renewable resources", let resources return from the cradle to the cradle, allowing the material to circulate continuously. OUCC has invested NT$19.2 million in the development of innovative "potassium iodide (KI) recovery technology" from basic design, equipment procurement and production, civil construction, equipment installation to testing. In the ethylene carbonate (EC) plant, the procress of increasing the concentration of potassium iodide from the potassium iodide waste liquid, and reuse it in the production process of other products not only reduces the cost of waste treatment, but the byproduct produced during the production process also brings in revenue to the company.

The new business model officially came into affect in 2018. We utilized innovative thinking and technology, and converted the "waste" of potassium iodide waste liquid into "useable renewable resources". The traditional linear economy strategy changed into a circular economy model, which created additional economic value, making OUCC stride towards the implementation of circular economy in the industry.

Process Innovation and Sustainable Circulation

The development and design of the "distillation/hydration equipment", allows potassium iodide (KI) waste solution produced by the ethylene carbonate (EC) plant to be concentrated to upgrade the originally paid "external waste" into reusable resource products, which can then be utilized in new production processes.

- At the beginning of 2018, OUCC started to recruit manpower from departments such as R&D, and engineering design and production, to be devoted to the R&D of the resource-based process for concentrating potassium iodide (KI).
- After the trial had been completed in October 2018, the potassium iodide (KI) waste solution was successfully concentrated to 15% potassium iodide (KI) for recycling with the simultaneous production of a by-product, monoethylene glycol (MEG).



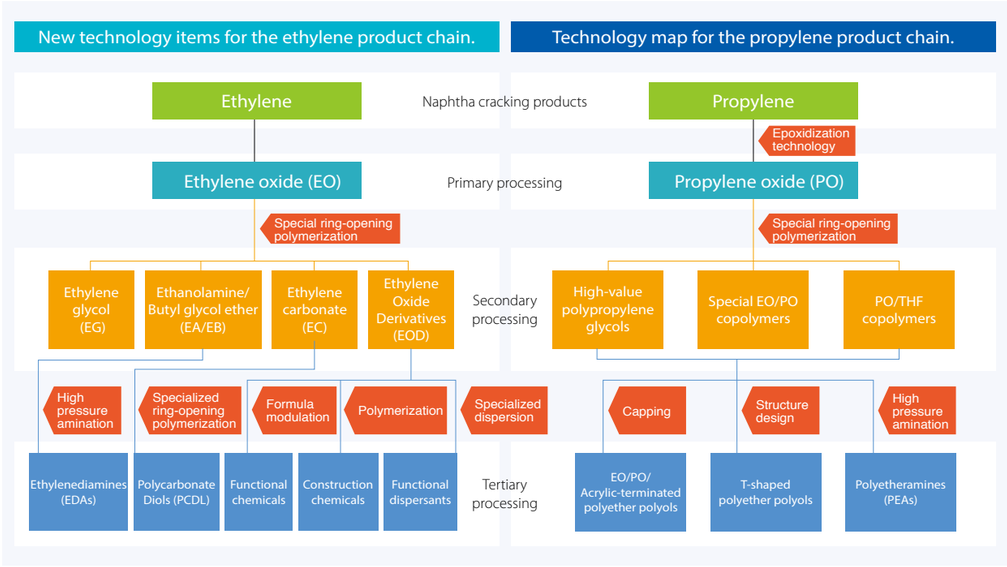
Innovative R&D

OUCC owns a highly educated R&D team, with 87% of the colleagues holding either a bachelor, master, or PhD degree. The research areas invested not only help in expanding business applications, but also proceed to high-tech research to adapt to market changes and future development trends in chemical materials. Based on the business strategies of product diversification, we proactively develop new products in different areas.

Vision of OUCC's Innovative R&D

- Become the helmsperson in the petrochemical and specialty chemical industry; accelerate the development of core technology and new high value-added products to enhance the competitive advantage in the industry.
- Increase domestic and international exchanges, and move towards the development of multiple fields including specialty chemicals, biodegradable polymer materials, and medical biotechnology, to create new value in the industry.
- Nurture talents, strengthen R&D capabilities, strive towards the enterprise of excellence.

Departments including Material Development, Process Development, Quality Control Analysis, Technical and engineering design are established under the Technical and R&D Center. In November 2018, the Product Development Department was added. In addition to the expansion of business applications, new products in several different areas have been developed in line with market changes and future chemical material demand. Current research and development areas include:



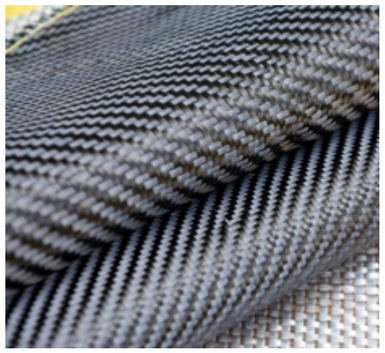
R&D Direction

In recent years, OUCC EOD/POD products have been actively developed into the customerization. New products include diversified non-ionic surfactants, of which the high-grade polyethylene glycol (PEGR1) product has the exceptional features of yellowing resistance and non-explosive polymerization.

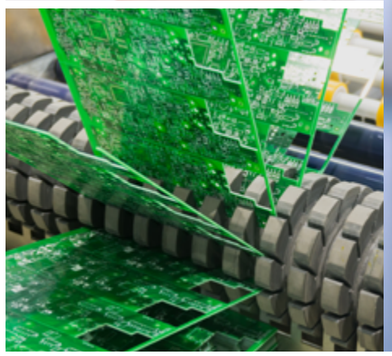
These products have excellent function such as moisturization, penetration, emulsification, dispersion and cleansing. The company has also developed products with low foam, low flow, low odor and biodegradability based on customer requirements and the quality receives high praise from the downstream customers. In the future, on top of existing products, we will provide more customized products tailoring to the customers' needs.

Innovative Technology

Innovative technology	Description
EO/PO derivative product synthesis technology	1. EO/PO/EC ring-opening technique: using various raw materials containing active hydrogen (alcohol, acid, phenol, amine, fat) as catalyst, synthesize various polyether products through ring-opening reaction. 2. Free radical polymerization technique: using this technique to develop functional agents such as polycarboxylate water reducer, collapse, coagulation-retarded, high flow admixtures. 3. Esterification/Transesterification/polyester technique: using relevant technology to develop functional materials such as fatty acid ester, phosphate ester, sulfate ester, polyester polyether, biodegradable polyester from EO/PO derivatives.
EO/PO derivative product formulated modulation technology	Using formula modulation technique, modulate compound formulae for EOD/POD raw materials with features of moisturization, infiltration, emulsification/demulsification, dispersion/condensation, foaming/defoaming, cleansing/decontamination and solubilization. The products can be applied to textile dyeing, agricultural chemicals, construction materials, electronic chemicals, personal and household cleaning, all walks of life in all industries.
Propylene epoxidation technology	Develop independent catalyst technology to produce PO, provide downward in EOPO polyether polyol reaction, integrate the product chain.
Specialized ring-opening polymerization technique	Continue to create specialized ring-opening polymerization techniques in order to produce low unsaturated, high molecular weight, highly active high-grade polyether polyol items which are applicable in high spec./ special spec. resin products.
Polyether alcohol-based amination reductive technique	Synthesize various types of polyether amine compounds to be used in epoxy resin, PU and polyamide fiber industries.
Alcohol amine-based amination reductive technique	Synthesize ethylenediamine, diethylenetriamine, aminoethyl ethanolamine, piperazine co-products, which are applicable to resin admixture, electroplating, pharmaceutical, agricultural, textile, papermaking, and solvent industries.






Innovative Product

Category	Subject	Contents
EOD/POD	Surfactant	● Downstream applications of EO/PO derivatives include nonionic surfactants, cement water-reducing agent, oil agent, detergent, and various intermediates ● Development and application of fine chemicals, mainly covering plastic rubber, textile dyeing, coatings, pesticides, electronic semiconductors, metal processing, building construction and consumable chemicals
	Purified MPEG/PEG	● Used in polyurethane PU processing. This polymer material is widely used in adhesives, coatings, low-speed tires, washers, and for car mats ● Polyurethane is also used in the manufacture of a variety of foams and plastic sponges for domestic use
EOD/POD Derivatives	Concrete admixture	● The concrete admixture refers to a substance which when added to a concrete mix improves the properties of the concrete. Its functions mainly include: water reducer, slump agent, retarder, accelerator, and an air-entraining agent ● Poly-carboxylic acid is a cement water-reducing agent and helps to improve the strength of the concrete. Also, the admixture will reduce cement consumption while workability and strength maintained ● Current research delves into the development of poly-carboxylic acid as a super water-reducing agent and slump agent
	Pesticide emulsifier	● Develop non-ionic emulsifiers to be used as herbicides (such as nonanoic acid), insecticides (such as sucrose ester, neem oil)
	Daily detergent	● Develop daily-use chemical agents with hydrophilic and soft, moisture-absorbing and quick-drying, antibacterial and anti-mite, and cooling features, such as clothes protection emulsions, cooling clothes protection emulsions, and antibacterial laundry detergents
EOD/POD Derivatives	Dyeing and finishing auxiliary	● Develop functional agents such as scouring, soaping, reduction, dye dispersion, and hydrophilic softening for post-finishing in textile dyeing processes
Polyetheramine	Monoamines, diamines, polyamine and polyetheramine derivatives	● The only company in Taiwan to possess direct reductive amination technique; the value of the product from deep processing of polyether product series can be further increased ● Polyetheramine is an amine-terminated molecule with a polyether skeleton as its main chain. It has features including low viscosity, high permeability, and excellent resistance to heat and yellowing ● It is mainly used in high performance composite materials, polyurea, cement additives, epoxy resin for flooring, coatings and accessories
Ethanolamine reductive amination co-products	Ethylenediamine, diethylenetriamine, aminoethylethanolamine, piperazine and related co-products.	● The only company in Taiwan to possess direct reductive amination technique; the value of the product from deep processing of ethanolamine product series can be further increased ● The main items are ethylenediamine, and diethylenetriamine, aminoethylethanolamine, piperazine and related co-products produced from itself and ethanolamine or through self-coupling, epoxidation or polymerization ● Can be applied to resin admixture, electroplating, pharmaceutical, agricultural, textile, papermaking, and solvent industries
PU Raw Materials	EOPO polyether polyol	● Polyetheramine has a wider range of adjustable molecular weight than the traditional polyether polyols. It has features such as low unsaturation, low VOC, as well as uniform molecular weight distribution ● Used in polyurethane (PU) polymer materials to increase the upper molecular weight limit, improve foam stability, withstand mechanical stress and increase material stiffness

R&D Investment

To maintain a position as a successful diversified company that supplies traditional chemicals, OUCC continues to build more customized EOD products on the basis of existing customers. We actively seek opportunities for strategic cooperation with internationally renowned companies, and have increased R&D investments to meet customer needs.

R&D Investment

	Unit	2017	2018	2019
R&D amount	Million (NT$)	145	160	161
Total annual revenue	Million (NT$)	12,756	14,620	11,762
Ratio	%	1.14	1.09	1.4

Note: Individual operating income

In addition to the government's approval of OUCC's annual investment credit program, the company have also received project grants of $4.41 million in 2019 from the Ministry of Economic Affairs (MOEA) for the establishment of R&D centers in domestic enterprises since 2016, and have received total project grants of $12.82 million for the period 2017-2019, speeding up the company's development towards high value-added industries. Besides, to strengthen research, development and innovation capabilities, we put in corporate resources, and collaborate with related R&D units to develop various research technologies and create a new pattern of high-quality green chemistry.

2019 R&D Collaborations

Type	Research Plan/Unit	Description
Equipment	Three sets of automated fixated continuous production equipment.	Verification of own technology and collection of factory information.
	Gas Chromatography (GC)	For purity analysis of raw materials or finished products, or to act as a mixture in the reaction to determine the conversion rate of the reactant
	UPLCMS Liquid chromatography mass spectrometry	1. It has the basic function of detecting the molecular weight of the compound, and to effectively analyze the types of items qualitatively and quantitatively. 2. It has high analyzing capacity for non-UV-absorbent EO derivatives such as PEG.
	UV-Vis, the UV-visible spectrometry	It is commonly used for the qualitative and quantitative analysis of carbonyl compounds or substances with a benzene ring.
	Distillation analyzer	Used for the analysis of gasoline, aromatic compounds, hydrocarbon compounds or petrochemical products.
Industry academy cooperation	The study of cyclization or active monomers on polyester modification	Develop biodegradable polyester materials that use bis (2-hydroxyethyl) terephthalate (BHET) and ethylene glycol as raw materials.

Product Development: Specialty Polyether Polyol

With the increase in shale gas production in the United States after 2009, the supply of propane is loose and prices are low, which has also had a profound impact on the structure of the petrochemical industry. OUCC has invested in the development and production of specialty polyether polyol series (including ethylene oxide / propylene oxide) to strengthen the establishment of the propylene product tree.

Master key technologies and obtained multi-national patents

As catalyst holds the key technology to the production of specialty polyether polyol series, OUCC has completed the development of such key technology and obtained multi-national patents. In addition, to increase product diversification, a number of technologies to synthesize specialty polyether polyol series have been developed and tested by downstream customers with positive feedback.

Production Process Development of Cumyl-Hydroperoxide Propylene-Oxide (CHPPO)

Since there remains no domestic factory and technology for producing PO, the market demand of propylene oxide depends on imports. In response to this, OUCC has exerted its innovative ability and invested in the development of self-owned technology for PO production. The aim is to reduce production cost of the polypropylene glycol series and increase the diversity of the PO derivatives.

Circular Economy and Global Patent

OUCC uses the CHPPO process that best meets the concept of circular economy as the main technology for producing propylene oxide.The most important key to this process technology is "catalytic technology"which provided by a Japanese supplier.

In response to this, OUCC has exerted its innovative R&D ability to develope four independent catalyst-related technologies and applied for multi-national patents. So far, two independent catalytic technologies have passed the review and certification of Taiwan and the United States. The catalyst has excellent catalytic activity (CHP conversion >99%, PO selectivity >97%), and its production and regeneration procedures are easier than those of the key Japanese supplier.

The catalyst developed by OUCC has excellent stability. Under a continuous reaction test, the catalytic activity does not tend to decrease over long periods of continuous on-and-off operation tests (>1,000 hours). Furthermore, OUCC has also established related process technology in response to CHPPO dehydration and hydrogenation. The current conversion and selectivity of dehydration-hydrogenation are more than 99% in compliance with the threshold for commercialization.

Environmental Innovation - Dyeing Agent with Low Foam and High Biomass

In recent years, biomass materials that is actively promoted around the world is an extremely important renewable resource. Just like renewable energy, it has environmental characteristics as the raw materials usually come from waste, which coincide with the environmentally friendly characteristics of recycle and reuse, a key point for modern petrochemical industry to enter the future biomass industry.

For this reason, OUCC is actively engaging in this trend. In the application of dyeing agents, biomass materials is combined to develop scouring, soaping, reduction, and dye dispersion agents that are low foam and high biomass with the assistance of the Far Eastern Group's textile plant for verification.

Of which, the scouring agent SCA02, soaping agent SOA01 and reduction agent RCA02 underwent Beta Analytic Testing Laboratory analysis (ASTM D6866), and results show the biomass contents to be 34%, 43%, and 54% respectively. With environmental protection thinking, OUCC develops products that are environmentally friendly.

Innovation in Environmental and Industrial Applications

Aside from developing its own proprietary technology for the production of high-valued fine chemicals, OUCC also takes into account the environmental protection, actively reduces energy consumption, achieving a win-win situation with high-valued products and revenue increase at the same time. Through active development in new synthesis (such as free radical polymerization, esterification, transesterification) and formulated modulation techniques, the company has successfully developed high efficiency water reducing agents, slump agents applicable for ready mixed concrete, and coagulation-retardant, high flow admixture for downstream formulation and ready mixed plants in 2019, which can be widely applied to the construction industry in the future.

This self-owned synthesizing technique can effectively reduce energy consumption. Take the production of 1,000 tons of high efficiency water reducing agent WR01 as example, it is estimated to save 40,000 kWh of electricity and 160 tons of steam, which is equivalent to reducing approximately 59 tons of CO_2 emissions; if reduced packaging materials and lessened transportation were added, the effects of carbon reduction would be even more significant.

Additionally, OUCC utilized transesterification, sol-gel method and formulated modulation techniques, which successfully developed a series of specialized functional detergents with "hydrophilic and soft, moisture-absorbing and quick-drying, antibacterial and anti-mite, and cooling" features. The above products are expected to enter the stage of mass production in 2020 by bringing high-value fine chemicals into our lifestyles, and create more application values.

Respect Intellectual Property Rights

We value the protection of technology and intellectual property rights (IPR). With regard to the research, development as well as purchase of the innovative technology, the "Procedure for Outsourcing Processing Technology" is formulated. Before it is kicked off, a new project will be initiated and a project leader assigned. A first edition of the formal technical data and relevant support will be provided to the project team by the outsourced supplier, then be allocated by the project leader to the production, technical, maintenance and other units, to complete the initial distribution signing process.

The project leader then convenes a project kickoff meeting, execute the project, and has the outsourced manufacturing process technical data distributed to production, technology, maintenance, and other relevant units. The contract will include protection clauses for IPR, patents, copyrights and confidentiality to ensure the integrity of technology rights, to strengthen core business advantage as well as sustainable competitiveness.

Green Chemical and Smart Manufacturing

Over the years, OUCC has been the pioneer in Taiwan's petrochemical industry on product diversification transformation, investment into green energy industry, and innovation of products and technology. It is believed the focus on green chemistry will promote new development of the petrochemical industry, as well as help solve sustainable issues such as economy, resources, and the environment.

Facing Industry 4.0, Artificial Intelligence, IoT, 5G, and big data, OUCC pursues the concept of smart manufacturing, using technology to optimize and enhance the productivity of tradition industries. For example, when creating a real-time PI database system, install sensors on production machinery and equipment to automatically upload production data to the control system. Then, through reports and analytic tool, allowing management personnel to receive real-time production status, and thereby effectively reducing the failure rate and maintenance costs.

For future prospects, OUCC shall maintain innovative and forward-looking attitude, continuing the research in green chemistry and connect to international intelligent manufacturing, using environmental protection and technology to realize the vision of sustainable development of the chemical industry. OUCC has adopted a "stable, safe and environmentally friendly" approach to product development. Applying the concept of the life cycle, the possible effects of the product on health, safety and the environment has been taken into account, aiming to reduce all risks. The green chemical strategies are set to help with the sustainable development of the industry.

OUCC "Green Chemistry and Smart Manufacturing" Promotion Strategy

1. Process technology in compliance with regulations: Purchased technologies are those already developed in compliance with the relevant regulatory requirements.
2. Green and Innovative R&D: Innovative technology development must meet the requirements of environmental protection agency, and encourage the research and development unit to make efforts to reduce resource consumption from an environmentally-friendly perspective.
   - Any release of toxic substances into the environment during production will be avoided as much as possible at the product development and design phase and there will be no residue on the product or contamination of the environment.
   - Less energy consumption and toxic substance release during producton.
   - Upon customer's request, the newly developed and manufactured products will be tested and verified by a third party.
3. Promote smart logistics and services: Build a real-time database system(PI), actively incorporate new elements of "Internet of Things" information, and implement smart logistics and services.
4. Cultivate AI management talents: Cultivate a new generation of AI management talents and create new value.

OUCC Intelligent Manufacturing, Nurturing Intelligent Chemical Engineering Talents

Take the supply of liquid gas products as example, OUCC actively integrates with "IoT" by implementing smart logistics and services. The company establishes a storage tank monitoring system on the client end, dynamically analyzing customer usage status, and automatically scheduling shipping arrangement, which promotes supply chain information transparency and horizontal integration, provides the fastest response services, and strengthens customer loyalty.

At the same time, OUCC is training a new generation of AI management talents. Recently, a number of personnel with different fields of expertise have been sent to Taiwan AI Academy to learn about AI-related knowledge and skills. Through practical operations, exchanges and discussions with peers by integrating diversified aspects including manufacturing, R&D, technology, construction, planning, information, and human resources, the talents bring up operational issues to the academy, and bring solutions back to the company. The talents utilize AI technology to increase operational efficiency, decrease production risks, and create new manufacturing value. In this new age of intelligent manufacturing, OUCC occupies strategically advantageous positions, and grasp onto incoming opportunities.

ETHICAL GOVERNANCE

The "Philosophy of Integrity" is the foundation for sustainable development of OUCC. We have set up “Best Practice Principles” and “Discipline Measures against Violation of the Codes of Ethics and Best Practice Principles” policies. A sound governance structure has also been established with a rigorous risk control mechanism, best-practice management has been implemented and an environment has been created that fosters sustainable operation of the enterprise.

2019 Sustainable Performance

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

- The result of the board of directors' performance appraisal is **“Above standard”**
- Selected by Taiwan Index Co., Ltd. to be included in the **"FTSE4Good TIP Taiwan ESG Index"**

FTSE4Good TIP Taiwan ESG Index

- Annual operating income of NT$ **11.8** billion
- Enhance information security, establish a remote backup facility, and remote login to the terminal that requires a two-factor authentication according to **Business Continuity Planning (BCP)**

About OUCC

OUCC was founded in 1975 and traded on the Taiwan Stock Exchange in 1987 with a capital stock of NT$8.85 billion, and has plants in Kaohsiung Linyuan and China Yangzhou. The OUCC is engaged in professional petrochemical business within the Far Eastern Group.

The OUCC has produced ethylene oxide (EO) and ethylene glycol (EG) related products for more than four decades, a major supplier of EG and EO derivative petrochemical products in Taiwan and the Asia-Pacific region.

OUCC has actively implemented innovative R&D, cooperative development and the introduction of high value-added technology, growth-oriented fine chemicals and specialty chemicals. Gradually develop into a diversified and sustainable company that covers traditional chemicals, specialty chemicals, and high-tech chemical materials, achieving the goal of continuously creating new value for customers, shareholders, and employees, and establishing new industrial value.

Plants	Product	Annual production capacity (tons)
Linyuan	Ethylene Oxide (EO)	360,000
	Ethylene Glycol (EG)	320,000
	Ethanolamine (EA)	60,000
	Glycol Butyl Ether (EB)	30,000
	Ethylene Carbonate (EC)	60,000
	Ethylene Oxide Derivative (EOD)	84,000
Yangzhou	Ethylene Oxide (EO)	400,000
	Ethylene Glycol (EG)	500,000
	Ethanolamine (EA)	40,000
	Ethylene Oxide Derivative (EOD)	66,000

Note: Please refer to 2019 Annual Report p.62 for the production value in the past 2 years.

- Head office: 13F, No. 101, Fu-Hsing N Road, Taipei City
- Telephone: (02) 2719-3333
- Factory: No. 3, Industrial 3rd Road, Linyuan District, Kaohsiung City
- Telephone: (07) 641-3101
- Number of employees: 366
- Manufacturing location: Kaohsiung & Yangzhou

Note: The OUCC production base for relative investment will be in Yangzhou, China.

The Sustainable Development Philosophy of OUCC

In response to key and major sustainability issues, OUCC has established various sustainability strategies and set qualitative and quantitative evaluation indicators to ensure that short-, medium- and long-term project actions can be concretely implemented, reduce sustainability risks, and move towards sustainability.

E

- Committed to improving process design, pursuing green production, investing in energy efficiency improvement and waste recycling equipment, minimizing the impact of operating production on the environment, and implementing balanced development of industrial production and environmental protection.
- OUCC has implemented the "ISO 14001 Environmental Management System" in 1998, completed the transfer procedures in 2018. A pollution prevention system has been promoted to improve the effectiveness of pollution prevention and reduce the risk of emissions.
- OUCC has also introduced the ISO 50001 energy management system for energy saving. And through innovative R&D, the circular economy model was integrated to strengthen the momentum of green industry.

S

- OUCC values the importance of industrial safety, health, environmental protection as well as human rights, and substantiates management system compliance in terms of industrial safety by introducing the "OHSAS 18001 Occupational Health and Safety Management System Certification" to construct a safe and friendly working environment.
- The Kaohsiung Linyuan Plant was awarded the “4.31 Million Accident-Free Man-Hours Record” certificate from the Occupational Safety & Health Administration, Ministry of Labor in 2019, and continues to progress towards the award of a “Five Million Accident-Free Man-Hours Record”. Also awarded the Health Workplace Certification-Health Promotion Mark by the National Health Administration of the Ministry of Health and Welfare.
- OUCC adheres to the core spirit of the “Universal Declaration of Human Rights”, the “ILO Declaration”, and “The United Nations Global Compact” and “Responsible Business Alliance Code of Conduct”. We abide strictly by all labor-related laws and regulations. The company has also formulated internal labor-related rules and management mechanisms to achieve equality and create a friendly working environment.

G

- In addition to pursuing economic stability, OUCC continues to integrate and develop core competencies, actively seeks potential cooperation with global companies, and introduces the most advanced chemical and biochemical technologies with the aim of creating new profit potential.
- Adherence to the OUCC spirit of entrepreneurship – “sincerity, diligence, thrift, prudence, and innovation” to steadily face future challenges and achieve sustainability.

The Chronicles of OUCC

1975

The company was authorized for incorporation with a share capital of NT$569 million.

1978

Ethylene glycol plant construction completed.

1987

Stock approved for sale.

1992

Completed the construction of the ethylene glycol wastewater treatment plant in compliance with national standards.

1998

Obtained ISO 14001, and achieved a record of 2 million consecutive incident-free man-hours.

2000

Implemented an enterprise resource planning system (ERP).

2002

Obtained certifications of ISO 9001 (Quality Management System) and OHSAS 18001 (Occupational Health and Safety Management System).

2004

Received the 2004 Taiwan Industrial highest award "Industrial Sustainability Elite Award" that is a symbol of sustainable development for enterprises.

2005

Completed the multi-functional pilot plant that was designed and constructed by the OUCC as a good foundation for future technology development, process design as well as new product pilot runs.

2009

Won the "National Industrial Zone Safety Partnership Excellence Award - Premium Business Unit" medal from the Council of Labor Affairs, Executive Yuan in December.

2012

- Completed the Oriental Petrochemical (Yangzhou) Corp. ethylene oxide derivatives plant with an annual capacity of 60,000 tons.
- Investment Commission MOEA approved PPL investment in Far Eastern Union Petrochemical (Yangzhou) Ltd.

2016

- Completed the gas plant with annual output of 340,000 tons at Linyuan site
- Far Eastern Union Petrochemical (Yangzhou) Ltd. officially started commercial operation of the ethylene oxide and ethylene glycol plants with respective annual output of 400,000 and 500,000 tons.
- Completed construction of the CO_2 plant III at Linyuan site with an annual output of 40,000 tons.

2017

Completed the reconstructrue of the ethanolamine plant I into an ethylene glycol monobutyl ether plant with an annual output of 20,000 tons.

2018

- Obtained ISO 14001:2015 (Environmental Management System) certification.
- Completed the technical revamp of EOD plant at Oriental Petrochemical (Yangzhou) Corp, increasing EOD annual output to 66,000 tons.
- Awarded the "Outstanding Imported Manufacturer Certificate" by the Bureau of International Trade, Ministry of Economic Affairs.
- Obtained ISO 50001:2011 (Energy Management System) certification.
- Obtained ISO 9001:2015 (Quality Management System) certification.

2019

- Introduced ISO 45001:2018 occupational health and safety management system, which is expected to pass the verification in 2020.
- Far Eastern Union Petrochemical (Yangzhou) Ltd, was rewarded the second annual Jiangsu Province Zi Feng Award for "Growth type companies".
- Accumulated 4.31 million incident free man-hours in 2019.
- Rewarded the 2019 CSR report award by TCSA.

Financial Performance

In recent years, as the petrochemical industry is greatly affected by the dramatic changes in the global economic environment, OUCC not only continuously expands production and looks for low-cost energy and raw materials supply, but also actively develops product transformation. As the main product, EG, was affected by the slowdown of downstream demand in 2019, and the overall industry's oversupply led to the weak product price.

Fortunately, OUCC has also been focusing on improving basic competitiveness and transforming high-valued products as its main operating principles. This strategy has seen initial results. With the relentless efforts of all our colleagues in 2019, OUCC gained an operating income of NT$11,762,636 thousand, decreasing 20% compared to 2018. The profit before income tax was NT$22,174 thousand and net income NT$ 33,618. A distributable cash dividend of NT$0.30 per share was resolved by the Board of Directors meeting.

Unit: NT$ Thousand

	2017	2018	2019
Operating income	12,755,671	14,619,729	11,762,636
Operating cost	10,850,815	12,567,843	10,951,780
Staff salaries and benefits	504,154	542,770	472,726
Dividend paid to shareholders	177,141	1,549,980	1,549,981
Dividend paid to government	57,861	366,197	206,228
Community Investment	1,724	5,859	1,768
Economic value retained	1,280,192	1,330,899	53,101
Total debt	8,471,568	9,050,534	11,023,437
Total asset	23,280,667	24,017,716	24,547,442

Note: 1. The information from the above form is obtained from unconsolidated financial reports.
2. Please refer to 2019 Annual Report p.76 for annual net sale and sale volume.
3. Please refer to 2019 Annual Report p.59 for shareholder structure.

Open and Transparent Communication Channel

The OUCC complies with the information disclosure regulations by publishing the financial, business, and corporate governance-related information on the company website. We also post all the information and communications in connection with investment seminars, shareholders' meeting, and investor relations and other company matters on the website. The OUCC has diversified communication channels:

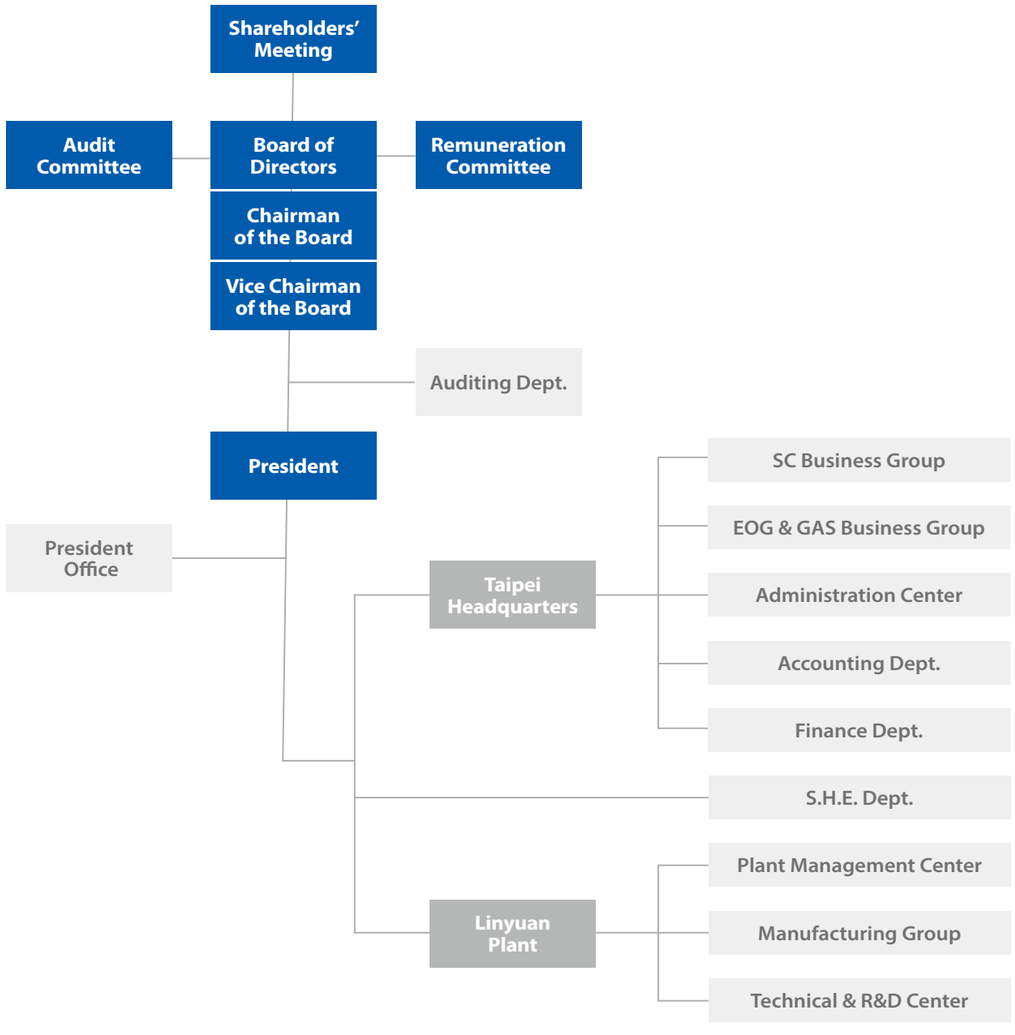
1. The suggestions or questions raised by the shareholders, in addition to being dealt with by the President Office, can also be attended by the spokesman and deputy spokesman of the company, or by the "Oriental Securities Corporation" that provides stock services to the OUCC. Periodically, the investors meetings will be held, and relevant information be disclosed to the public.
2. All the relevant information is on the MOPS and the Company website in accordance with government provisions and regulations.
   - Company website: https://www.oucc.com.tw/
   - MOPS: http://mops.twse.com.tw/mops/web/index

MOPS

Company website

Stakeholder	Contact	Communication Channels
Shareholders and Investors	Spokesman and Investor Relations Vice President of OUCC Sales Division	02-2719-3333
	Deputy Spokesman Assistant VP of OUCC Finance Department	02-2719-3333
	Stock Services Oriental Securities Corporation	02-7753-1699
Employees	Ms. Chen	02-2719-3333#281
Suppliers/ Contractors	Mr. Hsu	02-2719-3333#282
Business Clients	Mr. Hsieh	02-2719-3333#331

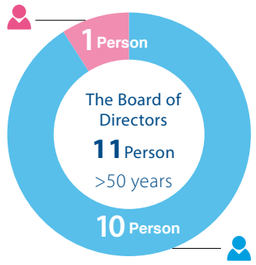
Operational Structure



Board

The Board of Directors is our highest organization. There are 11 Directors on the 15th Board of Directors (the term of office is three years starting June 8, 2018), including 3 Independent Directors.

The Directors of OUCC all exercise their powers in accordance with the company law and the regulations, the rules of procedure for board meetings and other relevant laws and regulations. We have established the "Corporate Governance Principle" and approved by the Board of Directors, and continue to strengthen all aspects and mechanisms of corporate governance, and strengthen the niche of OUCC's sustainable management.



Skills and diversification	● The term of office of the Board of Directors is three years. The candidate nomination system has been adopted for the nomination and election of members. Education and experience of the candidates are evaluated in accordance with the "Regulations governing the Election of Directors" and the "Corporate Governance Principles", ensuring diversity, independence and the opinions of the stakeholders be overall considered. ● All the Board members have sufficient management, decision-making leadership and related industry knowledge, with education and experience in legal, financial, economics, sales, etc.
Performance appraisal	The result of the Board of Directors' performance appraisal is "Above standard."
Board of Director's meetings	Four meetings of the Board of Directors were held during 2019 to set up the sustainable management objectives of OUCC and relative decision making.
Professional training seminars	Directors, and Managerial Officers of OUCC shall participate in external education and training courses on topics for corporate governance on a regular basis. In 2019, the courses included the "Operational Practices of the Board of Directors and Corporate Governance Seminar" and "Operational Practices of the Audit Committee". Please refer to page 46-47 of the 2019 Annual Report.
Major Proposals	● Approved the company's CC-22 catalyst contract with SHELL. ● Approved the joint investment in the construction of the ethylene storage tanks at Kaohsiung Harbor. ● Approved the plants construction for production of polyetheramine and ethylenediamine series, as well as the storage tank of liquid ammonia. Please refer to page 52 of the 2019 Annual Report.

Remuneration Committee

A Remuneration Committee has been established to determine and review the performance and remuneration of the Directors, and the management on a regular basis. Two meetings were held during 2019, with an attendance rate of 100%. The Remuneration Committee is mainly responsible for assisting the Board of Directors in setting up compensation policies and systems, and to review the performance appraisals of Directors and managers.

The OUCC procedures for setting the remuneration of Directors is based on the "Procedure for the Board of Directors' Performance Appraisal", which evaluates the operating performance, potential operating risks in the industry, corporate social responsibility and development trends. The company will decide reasonable compensation with reference to individual performance, achievement rate, and contributions to the company. The Remuneration Committee and the Board of Directors review relevant performance appraisal and the reasonableness of the compensation, and the remuneration system is reviewed when necessary according to the actual operating conditions and relevant laws and regulations, to reach a balance between corporate sustainability and risk control.

The remuneration of Directors as well as bonuses for employees are set in accordance with the annual operating performance of the Company and the percentage of distribution as set down in Article 33 of the Incorporation Articles. Additional proceeds are distributed depending on overall operating performance, taking into account a market salary survey made by a professional management consulting firm, an investigation related to the industry salary levels and those of listed companies and the overall financial risk of the business environment.

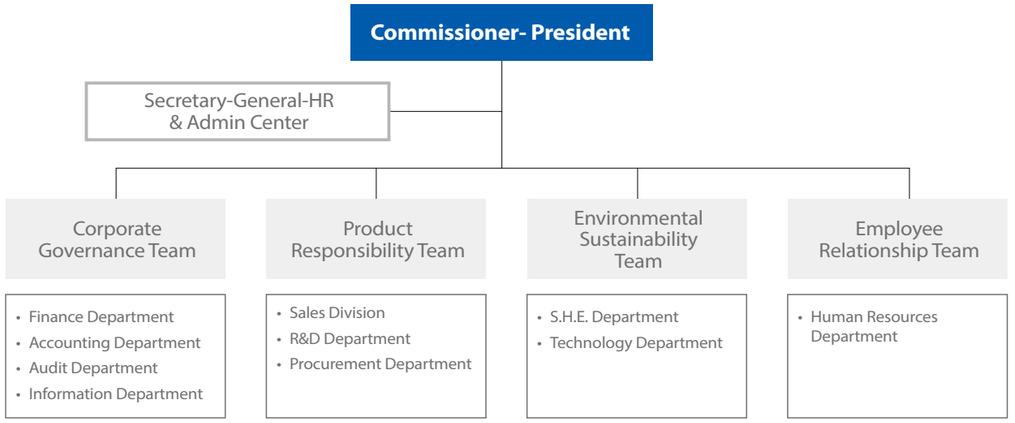
The operations and financial arrangements of the OUCC are independent from those of affiliated companies. All interaction with them is handled in accordance with the "Regulations Governing the Transactions of Related Parties," "Procedures for the Acquisition and Disposal of Assets," "Procedures for the Capital Lending to Others," "Procedures for Endorsement and Guarantee," and other relevant provisions. A risk control mechanism and a computer firewall have been properly set up.

Corporate Social Responsibility Committee

OUCC has established CSR Committee since 2014. The President has been appointed as the Commissioner responsible for final decision making, action plan review, and approval of the final reports. The HR & Administration Center is accountable for the organization and promotion of the task execution of each department, and report periodically to the Board of such progression status.

The head of each department, Assistant Vice-President or Senior Manager, are appointed to the CSR Committee. Top management is responsible for the operation of the committee and formulation of CSR relevant policies, action plans, and cross-departmental coordination. In principle, the CSR Committee holds regular meetings as well as extraordinary meetings for any specific CSR issue that requires an immediate response. All the management processes, results of assessments and general CSR information is communicated to stakeholders through the company CSR website.

CSR Committee Organizational Structure



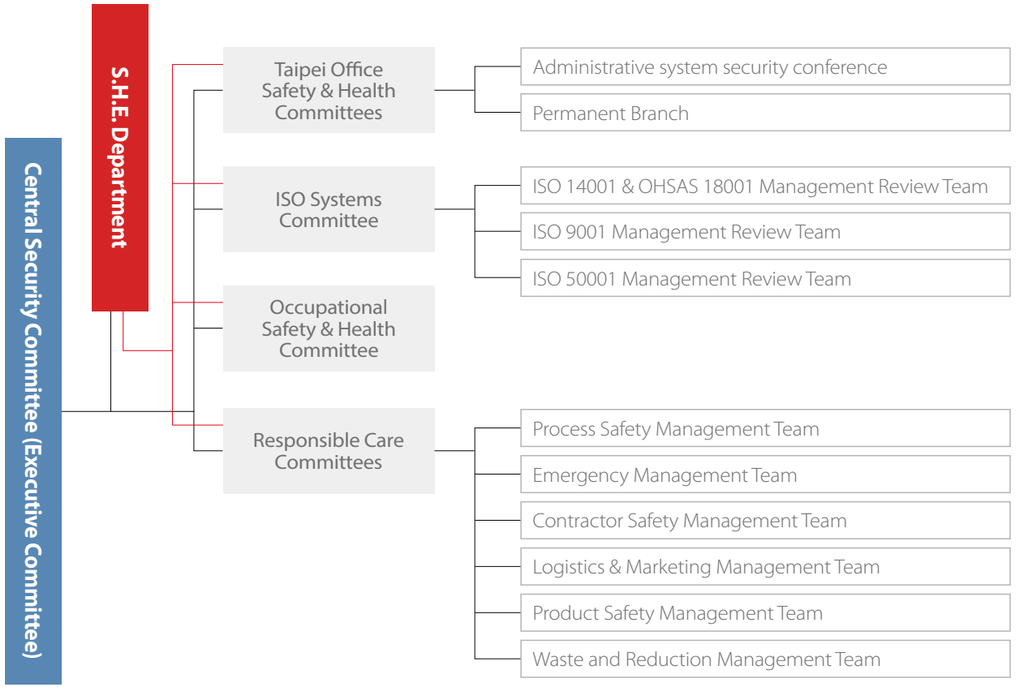
Risk Management

"Comprehensive risk strategies and steadfast operations" are important parts of thinking on OUCC's sustainable development. In addition to overall management planning for risks and setting up the general responsive strategies and procedures, individual units will also make their own appropriate plans.

Such precautionary planning will ensure the impact of an untoward event on company operation will be minimized through regular testing and drills.

Risk Management Organization

To ensure a balance between business operation and risk management, we have established a sound management and organizational system. Responsive measures can be taken for all business operation risks starting from the management level to ensure business stability and reliability.



Asset Risk Response Measures

- Property risk assessment: External professional loss-prevention insurance company personnel are invited for annual visits to the plant to work with the manufacturing and environmental safety personnel to jointly assess the categories of property risk and uncover potentially dangerous situations. Corrective action for any controllable risks can be adopted in advance while loss-prevention technology be introduced to prevent the occurrence of dangerous situations.
- Insurance planning: The transfer of unavoidable risk and force majeure by the acquisition of the necessary insurance in proportion to an assessment of the degree of risk, to formulate insurance strategy as well as terms and conditions.
- Currently, the company has purchased a blanket insurance policy for all property at replacement, added business interruption insurance, as well as project insurance for the sake of safety progress and trial run risk.

Accounts Receivable Risk Responsive Measures

In order to control an appropriate amount of working capital and minimize the occurrence of property damage, OUCC has established a Credit Committee chaired by the President. The Committee Members regularly review and assess customer credit status and the credit lines granted. Customer's sales credit as well as accounts receivables are examined regularly. To reach the annual management objective of "Zero Bad Debt," the overdue receivables are reviewed monthly.

Interest Rate Risk Response

- To reduce the risks arising from changes in interest rates, in addition to adjusting the interest rate structure for short-term operation, OUCC has tried to minimize the impact of future economic changes that might cause a rise in interest rate, and the consequent increase in cost, by having the mid-term and long-term interest rate locked by using fixed interest rate financing instruments.
- The company will continue to observe the changes in interest rates and engage in short-term and long-term financial planning to reduce overall capital cost.

Assess and Respond to Climate Change Risk

The impact of climate change on company operations has become a vital concern for global companies. In recent years, the entire planet has been affected by increasingly severe and more extreme climate. Floods and draughts, typhoons, and all kinds of other natural disasters have struck every corner of the globe, bringing the impacts such as compound disasters, water shortages, and devastating infrastructural damage. To gain a better understanding of the impact of extreme weather, in 2018 OUCC completed a questionnaire from the Industrial Development Bureau, Ministry of Economic Affairs, addressing extreme climate issues such as "flooding", "water shortage", "high temperature" and "power shortage". A preliminary assessment of the level and extent of the impact of these issues on the manufacturing industry was then conducted.

In addition, OUCC also adopted the "Recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD)" framework in 2019 to measure and evaluate the impact of climate change, and draft an energy resource usage strategy that would save energy and reduce carbon emission, and mitigate the impact of extreme climate and the consequential forces on the plants. Also, more investment is dealt to improve the energy consumption of manufacturing processes, which is also part of the action plan of OUCC in response to the climate change.

OUCC follows TCFD to formulate the management and control mechanism as below:

Framework	Disclosures
Governance	The Board of Directors has realized the importance of climate change issues. In addition to daily operations, which include the development of a sustainable environment as governance policy, the management team reports to the Board of Directors on climate-related issues such as greenhouse gas emissions, energy consumption, and water consumption on a quarterly basis. The Board of Directors also supports the promotion of climate change-related issues, such as the annual budget, the setting of business goals, as well as the monitoring of important capital expenditure and other climate risk assessments including water and power resource risks. The management team holds discussions and reviews all the relevant risks and opportunities at the annual CSR committee meeting. The findings are reported to the Board of Directors for the evaluation of corporate social responsibility performance.
	The Environmental Sustainability Team was set up under the CSR Committee to assess the risks and opportunities arising from related climate issues through the company's risk management process. In 2008, an cross-departmental "Energy Saving and Carbon Reduction Committee" was established, and chaired by Chief Plant Manager. Targeting power saving, greenhouse gas reduction and water resource management for the implementation. Regular task meetings are held quarterly to track the progress and the effectiveness of energy conservation and carbon reduction measures, and review the regulation trends and policy announcements on energy conservation and emission reduction, to evaluate and plan accordingly.
Strategy	According to the existing target milestone, the assessment and analyse of the risks and opportunities related to climate change are divided into short-term (2020), medium-term (till 2025) and long-term (after 2025).
	For the identified major risks and opportunities, assess the potential operational and financial impact on the company.
	Four strategies have been formulated based on long-term management goals: "Choose highly selective catalysts", "Improve energy efficiency", "Use renewable energy", and "Introduce low-carbon fuels".
Risk Management	1. An assessment of the impact on company operations was conducted in 2018 in accordance with the "Questionnaire on the Impact of Climate Change on the Manufacturing Industry" by the Industrial Development Bureau, Ministry of Economic Affairs. This addressed extreme climate issues such as "flooding", "water shortage", "high temperature" and "power shortage". 2. In 2019, the TCFD framework was followed to identify climate risks and opportunities and to formulate countermeasures that are to be confirmed by senior executives.
	The CSR Environmental Sustainability Team and the "Energy Conservation and Carbon Reduction Committee" conduct systematic assessment and analysis of climate change issues. Countermeasures and action plans are then formulated to reduce the impact on company operations.
	The CSR Environmental Sustainability Team and the "Energy Conservation and Carbon Reduction Committee" track climate change-related risks, and report the results of their assessment and analysis to senior executives, who take measures according to the degree of risk.
Indexes and targets	Five indicators of climate strategies: 1. Reduction of power consumption per product 2. Reduction of greenhouse gas emissions per product 3. A gradual expansion in the use of renewable energy as the market supply and demand is mature 4. Increase the accumulation of total power savings 5. Minimization of climate damage disaster to avoid production interruption
	Since 2014, Scope 1 and Scope 2 emissions have been verified in accordance with the "ISO 14064-1 Standard", and external verification has been conducted. Plans for Scope 3 emission inventory will commence in 2021.
	1. Management targets • 1% annual average power saving rate • 1% annual average greenhouse gas reduction • 2% reduction in daily water saving 2. Implementation effectiveness (1) 1.16% average power saving rate in 2019 (2) 27,600 t-CO_2e greenhouse gas reduction in 2019 (about 8.6%) (3) The "Paving & rain/polluted water diversion revamp and detention pond construction" project in Linyuan plant began in 2014 and completed in 2019 has improved the surrounding drainage system and solved the long-term flooding problem, and the establishment of the retention pond has been a countermeasure to the impact of climate change. (4) The "Linyuan Plant Wastewater Recovery System" started in 2018, and completed in March 2020. Currently, trials and performance tests are being conducted, and it is estimated that approx. 1,000 tons water can be reclaimed each day, with more than 70% of wastewater recycling rate, to be used in the cooling towers. OUCC keeps looking for other better water management solutions to reduce water consumption. 3. Future action plans The construction of self-used renewable energy generation equipment is under way as well as the purchase of renewable energy and certificates and the evaluation for the setup of energy storage equipment. The company will continue with plans and the promotion of energy saving & carbon reduction measures as well as the assessment of the cogen system constructon.

Anti-corruption Mechanism

To improve the stipulation, and supervision of best practice in all management policies and precautionary programs, the Directors, managers, and all employees of OUCC are bound to comply with relevant codes of conduct as published and posted on the company website for communication and advocacy with related stakeholders. The codes of conduct serve to standardize ethical behavior throughout the company that all employees engaged in commercial acts shall not, directly or indirectly, offer, promise, request, or receive any improper benefit, or engage in acts of bad faith, breach of trust or fiduciary duty, or any other illegal conduct.

it is clearly stated in the "Rules of Procedure for Board of Directors Meetings" that all Directors are bound to evade the interest, so that the Board of Directors may fulfill their obligations in good faith and ensure the implementation of a best-practice business principle.

OUCC has multiple communication channels for stakeholders to report the relevant wrongful acts. Should any violation of the regulations for ethical corporate management, it may be reported to the Company's Managerial Officers, Department Heads, and other suitable supervisors with the "Whistle-blowing" mechanism.

Management Policies	"Best Practice Principles" "Codes of Conduct" "Meeting Rules of Board of Directors" "Procedures for Handling Material Inside Information" "Whistle-blowing System and Discipline Measures against Violation of the Codes of Ethics and Best Practice Principles"
Communication and Advocacy	Relevant management policies and information are published on the company website to communicate with all relevant stakeholders. Official website: https://www.oucc.com.tw/en/governance
Education and Training	Internal management meetings are held regularly for the education and training of all employees. In 2019, all employees completed ethical management education and training.
Supervision Mechanism	The company has assigned a dedicated department responsible for reporting the implementation of best practice policies to the Board of Directors on a regular basis.
Report Channel	In person, by telephone, or in written form.
Result	No corruption incident occurred in 2019.

Sound Internal Control System

Approved by the Board of Directors, the internal control system of the OUCC is to be implemented by the Board, the management, and other employees and is designed to provide sound management and to achieve objectives of the internal control system.

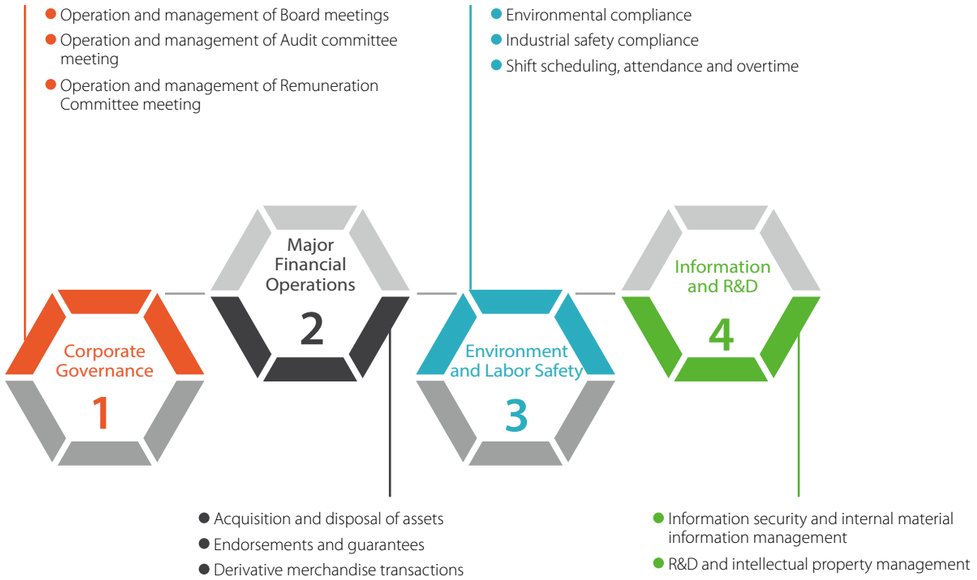
3 main objectives of the internal control system

1. To ensure the effectiveness and efficiency of all operations.
2. The reports should be reliable, timely, transparent and in compliance with all the relevant specifications.
3. All operations comply with the applicable laws and regulations.

The effectiveness of internal control is the responsibility of each and every department. All departments carry out regular as well as random self-audits of operations management. The internal auditor then reviews the results of the autonomous audits of all the departments from time to time to ensure the effectiveness of the internal control system.

Effective operation of the internal control system is ensured by an independent audit department directly responsible to the Board of Directors. In addition to regular business audit reports to the Audit Committee, the audit officer also reports at the Board of Directors meetings.

OUCC places high value on CSR related issues, internal control, and the internal audit. The 2019 audit plan included reviews on corporate governance, financial operations, environmental and labor safety, as well as information, R&D and other related operations, which was conducted to ensure company operations and information disclosure met the expectations of all the stakeholders.



Information Security Risk Management

To safeguard the information from the impact of unendurable risks, OUCC adopts the concept of Business Continuity Planning (BCP) to regulate the information management mechanism, and establish the systematic analysis and information security management guidelines.

1. Management Approach

OUCC's risk transfer and contingency strategies include management mechanisms such as risk assessment, risk transfer, emergency response and audit maintenance for proper operation of the information system.

Risk Assessment	OUCC adheres to "confidentiality, integrity, and availability" for identification of asset value at each stage of information management, to determine the scope of information security risk management.
Risk Transfer	• Multiple security defenses: these include firewalls, an enterprise VPN and remote access, encryption, intrusion detection and prevention, and anti-spyware software. • Application of an authorization mechanism: a user must fill in the online application form and is authorized for an application only after the electronic signature sign-off. • Management of hardware devices: OUCC equipment has uninterruptible power supplies and with inspections of safety control facilities carried out regularly. • Data transmission Lines are set up between Taipei Office and Linyuan Plant: An MPLS Virtual Private Network (VPN) was established using two 300MB private data lines. It uses ISP transmission encryption and decryption to secure data transmission. The two private lines are used in combination to allow continuous backup. • Two-tier identity authentication was employed using SSL VPN encrypted connections to reduce the risk of hacker attacks when the applications system is logined from the outside. • The Windows server was upgraded from the 2008 version to the 2019 version, so that the latest security patches from the original supplier could be applied to ensure the best level of security in the system opearation. • The control of the use of USB flash drives on personal computers was strengthened. Only USB flash drives that have been certified and registered by the IT Department can be used on computers in the company. If a USB flash drive is needed for data access, only a registered drive borrowed from the IT department may be used. Upon return, the borrowed drive will have to be formatted and scanned for virus. • Notebook computers can be borrowed for business usage after registered with IT department. Upon return, IT will thoroughly check and format the USB flash drives, as well as scan for virus.
Emergency Response	• Backup and restore mechanism: A mutual information system backup mechanism has been established between the Taipei office and the Kaohsiung Linyuan Plant. In the event of an emergency, the system can be switched immediately to synchronize and achieve continuity of the information system. System operations can be resumed within 4 hours.
Maintenance Audits	• Electronic Administration Operations: OUCC has established a comprehensive electronic documentation system, and has set up an administrative process control and electronic mechanism, which reduces unnecessary resource consumption. • File security control and maintenance: maintenance of fire and moisture protection for hardware and media devices. • Systems security audit management: an initial audit startup procedure has been built into the information system, and user account permissions are reviewed on a regular basis.

2. Action Program

To more effectively maintain information security applications and continuously improve operational momentum, three major action plans were proposed to comprehensively strengthen information security mechanisms.

Additionally, the establishment of remote backup architecture has been completed in 2019. When active defense is compromised and the information system suffers damage from intrusion, the IT Department can immediately activate a remote backup mechanism and system operations can be resumed within 4 hours. In 2020, steps were taken to strengthen the information security mechanism. The original OUCC application system that allows external suppliers to log in was changed to direct a login procedure through the OUCC official website. To further strengthen security and allay concern, a safer two-tier authentication mechanism was implemented for external personnel logging in from outside for business purposes.

Strategy	Goal	Program	Description
Risk Transfer	Enhance system defense mechanisms	Upgrade computer firewall and antivirus software	• The new sandbox technology is used to ensure a safe application environment and isolate computer virus attacks, to avoid advanced cyber security attacks and information leakage. • OUCC upgrades anti-virus software, which includes the filtering of remote command execution attacks, the prevention of malicious email attachment attacks, the modification and auditing of system configuration, and a cloud-based analysis of unknown programs.
	Enhance login security	Remote login terminal two-tier authentication mechanism	• Before introduction: The remote user can directly use the account and password to log into the company system. However, a stolen account and password can give an intruder direct access to the server for the theft of data. • After introduction: In addition to the account and password, the remote user also needs to enter a verification code from a mobile phone to access the terminal server and data.
Emergency Response	Enhance resilience	Establishment of a remote backup mechanism	• The establishment of a comprehensive remote backup mechanism which consists of a total of four backup processes to enable information from OUCC head office and Kaohsiung Linyuan plant to be simultaneously backed up into two alternative storage locations, to strengthen the continuity of operation management.
	Confidentiality	Cookie Policy Statement	• As OUCC website provides the public approach for business, the comopany follows industry practice and incorporates a "Cookies Policy Statement (Data Confidentiality Policy)" to the website, to comply with GDPR requirements for personal data protection and avoid huge fines for the inadequate data processing of the webiste.

Stakeholder Communication and Material Topics

OUCC attaches great importance to communication and interaction with stakeholders from all walks of life. Only by understanding the needs of stakeholders, specific implementation, and transparently responding to the issues they value can the company truly internalize sustainable operations into corporate management and fulfill corporate sustainability commitment.

Since the first CSR report was issued, OUCC has been adhering to "integrity governance, robust operation, and corporate responsibility" as three pillars of sustainable development. OUCC constructs a transparent interface to maintain immediate communication with stakeholders.

Diverse Stakeholder Communication

OUCC adopts the five major principles of AA1000 Stakeholder Engagement Standard (SES) to identify through the responsibility, influence, proximity, dependence, representative and policy implication perspectives of OUCC's stakeholders, which include employees, suppliers, corporate customers, shareholders and investors, the government and competent authorities, etc. With substantial analysis, stakeholders' concerned issues are identified, and relevant performance and improvement are disclosed in the Report.

OUCC values the suggestions of its stakeholders which provide strength for progress and the core element to sustainable development. It is believed that sustainable development can be achieved through diversified stakeholder communication, policy planning and implementation. To further advance in improvement and innovation, the company provides multiple communication channels to corporate customers in response to their requirements in product safety and quality, and to employees, investors, suppliers, and the local community for them to easily voice their opinion and be duly responded.

In 2019, we have identified several major themes and developed corresponding strategies and actions in response to the concerns of stakeholders, with details described in each chapter and please refer to page 140 for management approach of material topics.

Stakeholder Communication Channels

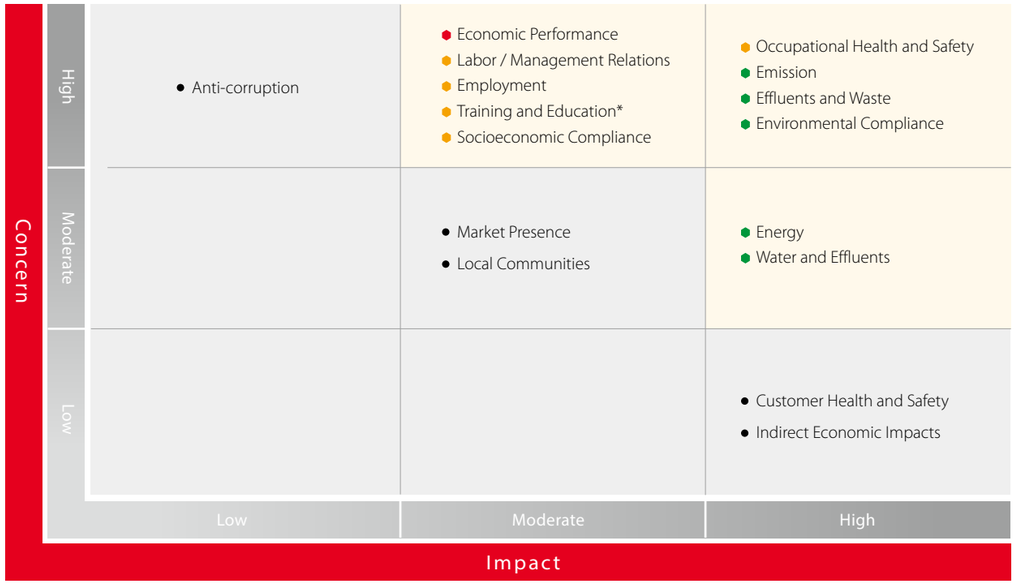
Stakeholder	The Main Communication Channel and Frequency	Concerned Issues	GRI Material Topic
Shareholders and Investor	1. Shareholder's meeting (annually) 2. Investors conference convened (quarterly) 3. The CSR website and report (annually) 4. Participation in the Corporate investor forum convened (occasionally) 5. Spokesman hotline and mailbox (occasionally) 6. The company website (permanent) 7. MOPS (permanent)	• Corporate Governance • Industry Trends • Economic Performance • Risk Management • Dividend Policy	• Economic Performance • Socioeconomic Compliance
Employee	1. Employee welfare committee (occasionally) 2. Labor-employer meetings (quarterly) 3. Occupational health & safety committee (quarterly) 4. Performance appraisal (annually) 5. Group activity (occasionally) 6. Education training (occasionally) 7. Grievance mail box (permanent) 8. Employee communication (annually)	• Employee Welfare • Work Environment • Labor Right	• Occupational Health and Safety • Labor/Management Relations • Employment • Training and Education
Corporate Customer	1. Customer satisfaction survey (annually) 2. E-mail (occasionally) 3. Distribution meeting (occasionally) 4. Customer visits (occasionally) 5. The company website (permanent) 6. The CSR website and report (annually)	• Industry Trend • Emission • Customer Privacy • Law and Regulation Compliance • Occupational Health and Safety	• Emission • Occupational Health and Safety
Supplier / Contractor	1. Supplier periodical evaluation (annually) 2. The CSR website and report (annually) 3. Transportation meeting (occasionally) 4. Supplier/Contractor safety meeting (monthly)	• Supply Chain Sustainability Development • Water Resource Management • Waste Management • Occupational Health and Safety Management	• Economic Performance • Occupational Health and Safety • Water and Effluents
Local Community	1. Charity donations (occasionally) 2. Event sponsorship (occasionally) 3. Telephone contact (occasionally) 4. The CSR website and report (annually)	• Environmental Pollution Management • Toxic Substance Management • Environmental Compliance	• Effluents and Waste • Environmental Compliance
Government Agency / Non-government Organization	1. Requested reports of government agencies (occasionally) 2. Regulatory audit (occasionally) 3. Academic research cooperation (occasionally) 4. Social participation of related Union / Association (occasionally) 5. The CSR website and report (annually)	• Law and Regulation Compliance • Energy • Award Engagement	• Socioeconomic Compliance • Energy • Emission • Environmental Compliance

Process & Boundaries of Material Topics

Process for Determining Material Topics

Step 1	Gather and complete the international guidelines, benchmarks and related industrial information, and OUCC's CSR related performance in 2019 before the CSR sustainability meeting is summoned.	Sustainability, Completeness
Step 2	Communicate through external stakeholders, and evaluate the major concerned issues thereof.	Stakeholder Inclusiveness
Step 3	Conduct CSR interview meetings and issue questionnaires to the stakeholders (including employee) to investigate potential impacts within and outside the organization.	Stakeholder Inclusiveness
Step 4	With the above evaluations, we collaborate with the professional judgment of all units, and combine with industrial considerations and the importance of issues as well as GRI guidance recommendations to develop OUCC's CSR matrix for 2019, with 11 material topics.	Materiality, Sustainability

Material Topics Matrix



Economy: Economic Performance

Environment: Energy, Water and Effluents, Emission, Effluents and Waste, Environmental Compliance

Society: Labor / Management Relations, Employment, Occupational Health & Safety, Training and Education*, Socioeconomic Compliance

Material Topics Boundaries

● Direct impact
▲ Indirect impact
■ Impact due to business relationship

Material Topic	Meaning and Importance to OUCC	Upstream	OUCC	Downstream			SDGs	Strategy Management (Page Number)
		Raw material supplier (CPC)		Transport contractor	Local communities	Corporate client		
Economy								
Economic Performance	Stable economic development is the foundation of business operations as well as sustainable development		●		▲	■	8	28
Environment								
Energy	Appropriate energy management can reduce operating costs and risks		●		▲	■	6, 7	84
Water and Effluents	Effective Water resource management, through recycling system, could enhance the sustainability of the plant resources	■	●				9, 11	96
Emission	The promotion and control of climate change strategy help develop sustainability	■	●	■	●	■	12	86
Effluents and Waste	Strengthen the control and management of waste to reduce the impact on the environment	■	●	■	▲	■	13, 14	98
Environmental Compliance	Strict compliance to environmental protection regulations as OUCC's promise to the environment	■	●	■	▲	■	15	103
Society								
Employment	Employees are the most important assets of OUCC. Attending to the need and voices of employees' can increase employee trust and strengthen centripetal force		●				3	58
Labor/Management Relations			●				4	62
Occupational Health and Safety	Construct a safe workplace environment, protect employees, and avoid potential costs and risks	■	●		▲	■	5	112
Taining and Education*	Good talent training and development can help attract talents and improve productivity		●				8	66
Socioeconomic Compliance	Compliance with regulatory requirements can enhance the trust and recognition of stakeholders		●	■	▲		8, 9	103

Note: 1. The main upstream of the industry value chain is raw material supply (CPC). The downstream includes transportation contractors, local communities, and corporate customers.
2. The threshold values for the major themes: X-axis and Y-axis rankings are both above 2.6 points (out of 3.0).
3. "*" is a major theme that has been newly added this year. Employees are the most important assets of the company and the cornerstone of growth. For the continuous development of talent, training and education are identified as major themes.

Association Membership List

OUCC keeps interacting with many external organizations across the industry. In addition to active participation in annual meetings, summits, and general assemblies of international, national, and regional organizations. The company promotes mutual exchange among the same and different industries. Through instant communication, it allows OUCC to understand the suggestions of relevant interested parties on the chemical industry and help OUCC march toward the sustainable development goals.

Association and Union Name	Membership
Petrochemical Industry Association of Taiwan (PIAT)	Director, Member
Taiwan Chemical Industry Association (TCIA)	Director, Member
Taiwan Responsible Care Association (TRCA)	Director, Member
Taiwan Institute of Chemical Engineers	Member
Taiwan High Pressure Gas Industrial Association	Director, Member
Taiwan Industrial Gas Association (TIGA)	Member
The Institute of Internal Auditors, Taiwan	Member
Industrial Safety and Health Association (ISHA) of the R.O.C	Member
Kaohsiung Chamber of Industry	Member
Chinese Arbitration Association, Taipei	Member
Chinese National Association of Industry and Commerce, Taiwan (CNAIC)	Member

Justin Tsai, the President of OUCC, has been appointed 9th Chairperson of TRCA

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

The Chairperson election of Justin Tsai took place at a Council meeting of the Taiwan Responsible Care Association (TRCA) on 20 June 2019. His term of office started at the very instant until the next election date in 2021.

President Tsai is a seasoned expert well known for his years of experience and significant contributions to the chemical industry in Taiwan. Under his capable leadership, OUCC and the member companies shall work together to share the green chemicals and technical experiences, continuing the improvement of overall environmental health and safety of the chemical industry, as well as collaborating with communities to contribute to the sustainable development and the economy in Taiwan.

Please refer to: https://www.oucc.com.tw/csr-97-page428

SINCERE AND DILIGENT PARTNER

OUCC values the communication and interaction of its employees, customers, consumers, supply chain partners, and stakeholders. The compoany has established sound partnerships and maintain good relations with all its stakeholders, through participation, cooperation, and interaction, creating a positive sustainable cycle with an active, professional and innovative approach.

OUCC is committed to the optimization of process technology, the establishment of sound environmental health and safety, the provision of better compensation and benefits than the industry average, and the continuous strengthening of social participation. These are the company's commitments on the sustainable development to partners.

2019 Sustainable Performance

- Employee benefits expenses totaled NT$**75.5** million
- Employee average compensation was NT$**0.985** million
- A customer satisfaction survey scored **33.3** points out of perfect score of 35 points
- Awarded the **"Certification Mark for Excellent Exporters/Importers"** by the Bureau of Foreign Trade, Ministry of Economic Affairs
- **100**% of suppliers followed the OUCC environmental policy
- The total number of evaluation audits on suppliers was **662** in 2019
- **100**% of freight forwarders passed the evaluation audit

Soild Partner

OUCC's staff management system is based firmly on the labor laws. In addition to protecting the basic rights and interests of workers, it is also committed to building a healthy, safe and sanitary working environment in line with the characteristics of the chemical industry, formulating appropriate and adaptable development and training plans, and allowing employees to obtain balance between work and life through a diversified and equalized working environment.

In order to build the trust between employers and employees, we inform the employees of company operating results and conditions via internally published documents or regular formal or informal departmental meetings.

Equal Employment Rights

To safeguard the labor rights of the employees, our staff management system is based firmly on the equipped techniques and capability of the employees. There is no discrimination based on gender, religion, nationality, or ethnicity with respect to employment, salary, performance evaluation, promotion, education and training, or personal benefits.

OUCC upholds the principle of fair and just recruitment and sets no unreasonable restrictions (such as withholding ID cards or passports, charging improper fees, etc). Child labor is strictly prohibited and all negotiations, employment agreements and contracts are carried out and written in a language the employee can fully understand.

Recruits of Diverse Talents

In 2019, the total number of OUCC employees is 366. Due to industrial attributes, there are 326 male employees (89%) and 40 female employees (11%). All employees in the factory are full-time (permanent contract) employees.

The head office of OUCC is established in Taipei City, and the factory is located in Linyuan Industrial Zone, Kaohsiung City. To promote and increase local employment opportunities, most of the employees employed in Linyuan plant are given priority to local residents.

To promote and increase employment opportunities for the region, there are 104 employees, approx. 32% of the total 324 employees at the Linyuan Plant are local residents. We take direct action to support and encourage local employment.

Percentage of Local Residents at Linyuan Plant

Job title	Local Residents	
	Linyuan	%
Engineer / Administrator and above	14	4.32%
Operation-Foreman	15	4.63%
Operation-Operator	75	23.15%
total	104	32.10%

Note: 1. In terms of international scale, OUCC hires 99.5% of domestic employees. Therefore, the ratio of local employees at Linyuan is used as the basis for calculation.
2. Ratio = Number of employee located in Linyuan area/ Total of employee at Linyuan plant

In addition to local staff, OUCC employs three Indonesians and one Hong Kongese. Foreign employees are given assistance with work visa applications, residence IDs and admission to National Health Insurance (NHI). The company also helps employees to acquire admission to the additional group insurance, jointly established by the company and the employee welfare committee, which supplements basic business insurance. The company helps employees with travel arrangements to Taiwan, compliance with labor law, and living assistance and accommodations when they have arrived. OUCC cares for their foreign employees at all times and reaches out in time of need.

OUCC Employee

As a major petrochemical manufacturer, OUCC's employees are mostly expertise in the science field. This means that the percentage of male employees (including direct and indirect employees) is higher than that of female employees. However, the OUCC values and cares for the development of female employees and those with excellent performance are promoted in accordance with the same principles applicable to male employees.

Category	Age	2019			
		Person		%	
		👤	👤	👤	👤
General Staff	<30	12	7	3.28%	1.91%
	30~50	224	22	61.20%	6.01%
	>50	46	5	12.57%	1.37%
Middle Management	<30	0	0	0.00%	0.00%
	30~50	18	2	4.92%	0.55%
	>50	19	1	5.19%	0.27%
Senior Management	<30	0	0	0.00%	0.00%
	30~50	0	0	0.00%	0.00%
	>50	7	3	1.91%	0.82%
DL	<30	3	0	0.85%	0.00%
	30~50	72	0	20.34%	0.00%
	>50	6	0	1.69%	0.00%
IDL	<30	9	7	2.54%	1.98%
	30~50	170	24	48.02%	6.78%
	>50	66	9	18.64%	2.54%

Note: 1. "Direct personnel" refers to plant shift employees."Indirect personnel" refers to plant non-shift employees. Both are included in the "Permanent contract" employees.
2. Definition of employee: General employee-grade 8 and down, mid-level management-grade 7,6,5, senior management-grade 4 and up.

New Recruits

	2017				2018				2019			
	Person		%		Person		%		Person		%	
	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤
<30	2	2	0.55%	0.55%	6	3	1.61%	0.80%	4	2	1.09%	0.55%
30~50	15	2	4.11%	0.55%	9	4	2.41%	1.07%	9	0	2.46%	0.00%
>50	0	0	0.00%	0.00%	1	0	0.27%	0.00%	2	0	0.55%	0.00%

Note: Number of new recruit/ Total number of employees of the year

Employee Turnover

	2017				2018				2019			
	Person		%		Person		%		Person		%	
	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤	👤
<30	4	0	1.10%	0.00%	1	3	0.27%	0.80%	0	0	0.00%	0.00%
30~50	11	2	3.01%	0.55%	6	0	1.61%	0.00%	13	1	3.55%	0.27%
>50	11	0	3.01%	0.00%	9	0	2.41%	0.00%	9	2	2.46%	0.55%

Note: Number of employees resigning (includes retirement but does not include involuntary leave)/ Total number of employees of the year

Multiple Communication Channels

The OUCC has comprehensive management rules and regulations designed to ensure fair and reasonable treatment of all personnel. Employees can express their opinions, discuss and solve differences at labor-management meetings which are held regularly. Employees and employer are able to present views in the spirit of coexistence and by friendly interaction to maintain harmonious labor relations for the common good.

The OUCC pays careful attention to the voices of the employees and cares for them. The Company promotes benign communication with their employees using a range of different approaches. In addition to regular labor-management meetings, the Company communicates and discusses the labor/management coordination by means of various internal meetings, labor/management meetings, employee seminar and timely manner, so to effectively maintain the harmonious labor relationships.

2019 Employee seminar in Linyuan

	Times	Person	%
Department seminar	10	189	58.7%
President seminar	2	207	56.6%
New-employee seminar	1	10	83.3%

Labor union	● The OUCC Union was established in 1988 to protect the interests of members. Group agreement has been approved in 1995. Union members constitute 65.85 % of the employees in 2019. ● Protect the employees' rights to the freedom of association and collective bargaining power without any involvement in the establishment, operation or management of an organization or collective bargaining. ● Through the union's communication, it promotes harmonious labor relations and creates a good working environment.
Labor/ management meeting	● The regular labor-management meeting appropriately reflects the employees' opinions on the operation and financial status of OUCC, or the important decisions concerning the interests of employees, so as to effectively solve the problem. ● Should the company find it necessary to make any major changes that affect OUCC employees, the notification period is in accordance with the relevant regulations of the Labor Standards Act.
Internal meeting	● Pursuant to the group agreement and relevant laws and regulations, when there are significant operational changes, the company shall communicate with the employees and union representatives through the staff meetings, plant operation meetings, or through other suitable channels. ● There has been no major change in business operation that might have affected employee rights in 2019.
Employee seminar	● We advocate internal rules and regulations, collect and reorganize employee opinions, then forward them to each responsible unit for improvement and the subsequent tracing.
Occupational safety & health committee	● OUCC labor representatives account for 50% of the safety and health committee. ● All health and safety issues are regulated by the "Occupational Safety & Health Committee."
Timely manner	Human Resources Dept. ● Taipei Office: (02)2719-3333 ● Linyuan Plant: (07)641-3101

Human Rights Protection

To protect the rights and interests of employees, OUCC actively adheres to the core spirit of the "Universal Declaration of Human Rights", the "ILO Declaration", the "The United Nations Global Compact" and "Responsible Business Alliance Code of Conduct". We abide strictly by all labor-related laws and regulations. Human rights issues are included in the assessment and consideration of all aspects of our operations. OUCC has established a diversified work environment where everyone receives fair treatment and is given equal rights and opportunity. This includes all employees, suppliers, and community members.

Human Rights Policy of OUCC

OUCC abides by government laws and regulations, supports international human rights convention, and in full compliance with the "United Nations Universal Declaration of Human Rights" and the "Declaration of Fundamental Principles and Rights at Work" of the International Labor Organization. Human rights-related policies have been formulated and implemented to prohibit any form of coercion or forced labor, discrimination, or the use of child labor.

The company values the labor rights of employees, and is committed to creating a healthy and safe work environment with gender equality, and plans more extensive development and training for employees. The positive workplace atmosphere established and maintained by the improvement of welfare, the uplift of excellent work environment and organizational culture allow employees to find the balance between work and free time.

There is little risk to human rights in the operation environment of the company. The internal labor conditions and prevailing rules have all been formulated in compliance with government regulations. Employees are informed about any major changes through effective communications channels in accordance with the relevant laws and regulations. Employees are encouraged to voice their opinions which the company will respect with an open mind.

To reduce human rights risks and improve the employees' understanding of human rights, OUCC has set up human rights training course for all new employees upon employment to enhance the concept of diversity, equality and tolerance for all employees, and to create a friendly working environment.

2019 Human Rights Training

Trainee	Time/Hr	Human rights training content	Participant
All employee	4 times	1. Introduction of"Best Practice Principles" and "Codes of Conduct" 2. "Gender Equality"and Sexual Harassment Prevention 3. The link between CSR and RBA	309
New employees	0.5 hour		17

Besides, relevant regulations in the document system are explained and made available to employees, which include "Work Rules", "Rules Governing Personal Information," "Rules Governing Employee Grievances", and "Act of Gender Equality in Employment and Sexual Harassment Prevention, Grievance, and Discipline".

Employee Ethical Behavior

We value the ethics and integrity of our employees who are requested to sign a "Letter of Consent" when joining the company. This document becomes part of their personnel record and is a declaration by the employee to abide by the company rules and regulations and also those of personnel management, as well as a commitment for non-disclosure of the company business confidentiality. The document content is published within the company and is available for examination and reference by all employees.

1. Code of Conduct and Code of Ethics:
Work rules include: (1) General rules (2) Employment (3) Service, holidays, days off, special leave (4) Request for leave (5) Salary (6) Year-end bonus (7) Safety, health, welfare, pension, and occupational accident compensation (8) Discipline (9) Performance evaluation and reward & penalty (10) Resignation, termination, and severance (11) Retirement (12) Annex.

2. Confidentiality commitments:
(1) The definition of confidential information (2) Confidentiality obligations (3) The legal effect and subsequent liability of breach of contract (4) Effect after the termination of employment (5) The transfer of rights (6) The applicable law and jurisdiction.

Number of Employees from Minority Groups

Unit: person

	2017	2018	2019
Aboriginal employee	1	1	1
Disabled employee	3	3	2

Human Rights Protection Mechanism

Fair employment

- Provide open, fair, and impartial job opportunities to all applicants in accordance with the "Employment Service Act"
- The "Human Resource Evaluation Committee" has been established to administer the "Rules Governing Human Resource Evaluation" and matters that involve commendation or disciplinary action will be discussed and decided by the department heads with a final decision approved by the President in accordance with the "Work Rules"

Labors' freedom and rights

- Domestic and foreign employees are respected for their freedom of choice and occupational rights, and are not forced or pressured to conduct labor activities, nor will their freedom of movement be unreasonably limited in the working environment
- Employment contracts signed by foreign employees are written in the language of their own country, the benefits comply with local laws or are even more generously provided, and no arbitrary changes are made to the content of an employment contract
- All employees are treated with equal care and protection irrespective of their nationality

Gender-friendliness

- The "Act of Gender Equality in Employment and Sexual Harassment Prevention, Grievance, and Discipline" and "Mechanism for handling complaints of sexual harassment" stipulated to protect employee rights to work, maintain gender equality in employment, promote the spirit of substantial gender equality, and to provide a working environment free from sexual harassment
- Education and training on gender equality in employment and sexual harassment prevention
- All the appropriate preventive, corrective, and disciplinary measures against sexual harassment are firmly applied and all employees have unimpeded access to a clear grievance channel to ensure their best interests
- OUCC is vigorous in its advocacy and promotion of the anti-gender discrimination policies and mechanism to prevent workplace violation and sexual harassment

Personal information security

- The "Rules Governing Personal Information" have been clearly set down for the preservation of confidentiality and the management of personal information, and also to ensure the safety and legality of OUCC for the collection, processing, usage, and international transmission of personal information

Multiple grievance channels

- Abide strictly by the "Rules Governing Employee Grievance" and establish a smooth grievance channel
- Establish a Contractors grievance window on the website to provide a smooth channel for their complaints, hotline: (02)2719-3333
- There were no complaints in terms of human rights in 2019

Talent Training

At OUCC, we understand that the talents hold the vital key to the sustainable management of the company, which are also the source of competitiveness. To help employees maximize their potential, we have established a complete education and training system which has short-, medium-, and long-term professional career development opportunities. In addition to increasing internal cohesion, the professional potential of employees is inspired and enhanced, and grow simultaneously with the company.

Employee Training Hours and Input

Unit: hour

Type of Employee	Gender	2017		2018		2019	
		hour	average	hour	average	hour	average
General Staff – Direct Labor		1,423	16.74	1,978	23.83	4,549	26.60
		0	0.00	0	0	21.5	21.50
General Staff – Indirect Labor		6,786	37.29	4,397.5	21.66	3,443	31.02
		493	17.61	705	20.14	867.5	26.29
Middle Management		4,066	12.32	552.5	14.93	967	26.14
		169	42.25	4	1.33	29	9.67
Senior Management		151	13.73	170	18.89	306	43.71
		29	9.67	28	9.33	1	0.33
All Employee		12,426	37.65	7,098	21.38	9,265.3	28.42
		691	19.74	737	17.98	919	22.98

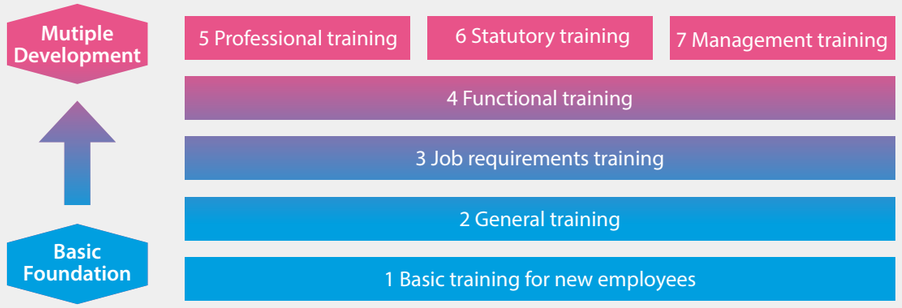
Note: 1. Definition of employee: General employee-grade 8 and up, mid-level management-grade 7, 6, 5, senior management-grade 4 and down
2. Average hours in training: Total hours of training for the employee category / Total number of employees in the category

Training Investment Statement

Type	Item	Unit	2017	2018	2019
Total employee training hours	Total	hr	12,802	7,835	10,184
	Average	hr	35.07	21.01	27.83
Total employee training amount	Total	NT$ million	1.06	0.98	1.24
	Average	NT$	2,904	2,630	3,390
	The proportion in the current year's total revenue	%	0.0083%	0.0067%	0.0105%
	Total Revenue	NT$ thousand	12,775,671	14,619,729	11,762,636
	Total number of employees	Person	365	373	366

Note: 1. Total revenue is calculated by individual revenue statistics.
2. Average employee training hours = Total employee training hours/ Total employee
3. Average employee training amount = Total employee training amount/ Total employee
4. The proportion in total revenue = Total employee training amount/ Total revenue

OUCC Education and Training System



1 Basic training for new employees

Consolidation of employee knowledge of company business operations

- One-week training with courses covering business functions, regulations and procedures, products and processes.
- Managers of each unit are appointed to coach the training course.
- Examinations after the training course.
- Follow-up seminars for new employees.

2 General training

To improve the professionalism and work function talent

- Organize annual SHE training, training in ethical corporate management best practice principles and the ethical codes of conduct. At least four face-to-face courses are conducted which provide supplementary training in line with work shifts to ensure that all employees complete the general training courses.
- Courses are planned for all employees that include briefing techniques and SAP operations based on common training requirements.

3 Job requirements training

- Each job position has a corresponding job description, which clearly defines the rights, responsibilities and required knowledge for the job.
- Employees can accumulate and develop the ability to perform their job duties through practice, task assignments, experience sharing by senior colleagues, and guidance given by managers.

4 Functional training

- This matches job requirements with employee ability by regular performance review to uncover any functional gaps and add remedies by functional training.
- Internal and external training is organized according to different requirements, to solve individual performance problems and set up a corporate goal for continuous improvement.

5 Professional training

- In addition to job duties set out in the job description, we also pay attention to employee development in relevant fields. We conduct professional training, and prepare for the professional manpower in advance to be aligned with the company strategic development.

6 Statutory training

- Strict review is applied for the operation and management qualifications required for each position in accordance with the regulations related to environmental safety and health.
- Before taking up certain dedicated positions, an individual must complete statutory training and obtain such operating certificates requested for the job: such as the operation of first class pressure vessels, specific high-pressure gas equipment, hypoxic operation and supervision, stackers, fixed crane operation, specific chemical substances, and boilers.
- Further training courses are conducted on a regular basis to ensure the continuity and effectiveness of qualifications.

7 Management training

- We develop team leader training that focuses on management cases that may be encountered by newly promoted managers, and assist them to enhance their managerial competence through relevant case discussions, exercises, and a series of courses.
- Cooperate with external training institutions and recommend appropriate management courses to meet the development requirements of middle and high-level managers.

Professional Talent Training

A potential talent and leader nurturing mechanism has been implemented to search for competent successors for existing supervisory and management posts. Promising personnel are selected to take part in short-term management seminars and provided with the planned job rotation and experience practices, so as to get familiar with the business of the unit.

We also encourage our talented personnel to register for MBA degree programs at domestic universities to improve their management skills. “Practical business skills training for supervisors" was introduced in 2019 to strengthen leadership skills, allowing frontline team-level supervisors to focus on their own briefing and teaching skills. Weekly practical exercises coupled with real-time scoring and feedback are given by department-level tutors to improve the skill of frontline supervisors.

Job rotation and promotion programs have been established to enhance education and training, as well as a filing procedure for recording job rotation and training aimed to provide comprehensive operation familiarity to personnel. This has facilitated the cultivation of competent successors for managerial and supervisory posts.

Youth Potential Cultivation and Industry-Academy Collaboration

OUCC responds to "Industry-Academy Internship and Talents Training Program" of the Far Eastern Group, by participating in the acceptance of internship applications from Yuan Ze University students, as well as looking for potential future preparatory manpower of the company.

Take the Quality Control and Analysis Department in the Linyuan plant as an example. According to demand, interns are recruited from the schools of chemical engineering departments each year. In addition to providing the same occupational safety and health training as is given to full-time staff, the interns are assigned to either the analysis research team or a laboratory team according to expertise and aptitude. Through practical work, they learn of the service types that link quality control with production and R&D.

Furthermore, the company has also set up an intern performance evaluation mechanism to evaluate their interpersonal relationships, qualifications, work ability, work performance and attendance. This provides feedback for the young interns, raises their level of enthusiasm for independent learning, and improves competence in work environment.

Regular Performance Evaluation

The OUCC has clear specifications for employee performance evaluation and employee incentive. To maintain both equity and employee development, managers at all levels will discuss daily performance with the staff during the evaluation period.

All employees (including the President) are evaluated annually after a one-year term of employment. In addition, any particular merits or demerits should be reported to the Personnel Review Committee and to the President for approval before commendation is given, or disciplinary action is taken. The 2019 annual performance evaluation was a 100% all-employee operation. Operator-level colleagues, employees at respective level, as well as management level were all evaluated. During that time, three female colleagues were on childcare leave without pay, and took no part in the evaluation. So were the sixteen on-probation employees newly recruited.

Performance Evaluation Management Mechanism

Personnel	Item	Frequency
All Employee	An annual comprehensive evaluation resulted from each employee’s absence status, leadership, work capability and performance, etc.	Per year
New Recruites	New recruits are evaluated for qualification after a 6-month probation period to confirm their competence	Per year

The OUCC has formulated the "Rules Governing the Payroll" as a reference for determining personnel remuneration and salary increases. To keep the salary competitive to attract and retain the talented candidate or personnel, the Company studies proactively the industry pay levels and review regularly of its remuneration policy. The performance appraisal and evaluation mechanism is carried out in two stages. Direct managers account for 70% of variance in employee performance evaluation, and managers at higher-levels account for 30% of variance. After that, the department managers will make final adjustments, and share interest with employees when the company is profitable in the current fiscal year.

Perfect Pension Mechanism

We have implemented an employee retirement plan in full compliance with the "Labor Standards Law" and "Labor Pension Act." The sound financial system of the OUCC ensures that retired employees have the right to receive pensions, so that employees can still have a certain quality of life after retirement.

List of OUCC's Pension Plan

OUCC's total value of payable pensions	NT$382,672 thousand
Percentage of retirement fund set aside by the company	10%
Percentage estimation basis	Actuary report
Time of evaluation (annual)	2019
The response strategy while the existing retirement fund being insufficient to pay its debts	Pay from company account
Level of participation in retirement plan	All Employee

Note:Please refer to the 2019 Annual Report page 61.

The Labor Pension Committee is set up according to the Law and a pension reserve is appropriated in an amount equivalent to 10% of the total monthly salary in accordance with the employee retirement plan and deposited in a trust fund account at the Bank of Taiwan as per government regulations. Pension reserve committee meetings are held periodically to review pension appropriation, investment and implementation to protect the interests of the employees. NT$15.972 million was deposited into the special account for retirement in 2019. At the end of 2019, the total labor retirement reserve account had reached a total of NT$118.907 million. OUCC abides by the provisions of the Labor Standards Act and evaluates the retirement reserve every year, ensuring that it is sufficient to support the pension payments for all the potential retirees.

In addition, for those employees who have chosen the Labor Pension Act, an amount equivalent to 6% of the monthly salary respectively for each employee is deposited in a personal account with the Bureau of Labor Insurance to safeguard the interests of the employees.

Employee Compensation and Welfare

Taiwan basic salary	OUCC basic salary	
		
NT$23,100	30,000	30,000
Basic salary ratio with Taiwan	1:1.30	1:1.30

The OUCC has Employee Welfare Committee, which in addition to the lawful benefits, arranges welfare activities for the employees that include an annual dinner, scholarship grants, subsidies for activities, birthday, wedding, funeral, childbirth, and monetary gifts for three public festivals, and the year-end, as well as group insurance. To keep balance of the physical and mental health of employees, in addition to the health checkups and group insurance for both employees and their dependents, the welfare committee also organizes employee annual tours and other activities. The employee welfare expenses totaled NT$75.5 million in 2019 with welfare subsidy of NT$20,433,152.

According to the Article 33 of the OUCC Incorporation, OUCC shall appropriate 1%~2% of any earnings as remuneration for employees. If the Company accumulates a loss, an equivalent amount should be reserved ahead as compensation.

Full-time Employee Benefits for Non-supervisory Positions

Item	Unit	2018	2019	Compared to the previous year
Number of full-time employees	Person	351	354	101%
Average salary	NT$	1.095 million	0.958 million	87.5%
Median salary	NT$	NA	0.893 million	NA

The OUCC Employee Welfare Expenses

Unit: NT$

Type	2017	2018	2019
Pensions	23,690,728	24,994,677	23,309,854
Insurance expenses	29,259,270	32,713,618	33,873,999
Employee (profit) recompense	31,958,357	31,973,230	457,197
Special bonuses	3,672,763	37,705,780	6,633,163
Shuttle bus	9,158,650	9,681,549	9,606,843
Employee health checkup	1,358,070	1,134,899	1,604,675
Total	67,139,481	138,203,753	75,485,731

Note: Employee Welfare include regular appropriation (for example: pensions, insurance, business transportation, and private healthcare), as well as other employee subsidies, such as: housing subsidies, interest-free loans, public transport subsidies, educational grants, and dismissal subsidies, but exclude education and training, protective equipment, and staff costs or expenses directly related to the job.

The 2019 Welfare Measures List

Unit: NT$

Welfare measure	Description	Subsidy amount	Number of beneficiaries (person)
Marriage subsidy	Staff marriage subsidy, NT$2,000/person	2,000	1
Childbirth subsidy	Employees childbirth subsidy, NT$1,000/per birth	14,000	14
Hospitalization subsidy	Staff hospitalization subsidy, NT$1,000/time	10,000	10
Staff travel subsidy	Full subsidy for each employee	1,038,092	269
	Lineal family members, NT$1,600/person (maximum 3 people)		
Self-reliant tourism	Self-reliant tourism and academic events	9,678,300	371
Social group activity	Encouraging employees to organize social group activities, each social group for NT$10,000/year, Taipei Office social group for NT$13,000/year	167,801	220
Birthday celebration subsidy	Staff birthday celebration, NT$2,000/person	724,000	362
Year-end dinner	Employee year-end dinner	238,600	250
Retirement Benefits Application	Employee retirement gifts	132,030	8
Funeral subsidy	Staff NT$50,000	113,400	12
	First degree of kinship NT$5,700/per person		
Moon Festival gift	Moon cake gifts	226,200	371
Group insurance	Life insurance, personal accident insurance and medical insurance, hospitalization insurance	760,729	371
Festival Bonus	A festival bonus of NT$5,000 for each of four holidays (New Year, Dragon Boat, and Moon Festivals, as well as Labor Day).	7,328,000	371
Total		20,433,152	2,630

Note: New Employees 'welfares are provided on proportion.

OUCC provides transportation fee subsidies for Linyaun employees and employees in areas where shuttle buses don't reach. A total of NT$1,783,100 was subsidized in 2019.

Transportation subsidy amount

Unit: NT$

	Subsidy amount
2017	1,683,000
2018	1,838,100
2019	1,783,100

Club Activity

The OUCC does not have a large number of employee but we are as close as family. Our employees develop all kinds of associations for exercise and stress relief. There are total 18 clubs, and currently 16 clubs receive annual grants from the company, NT$168,000 was granted in 2019.

When a club is formed, the Director of the club files an application and a prospectus for annual club activity and a budget, a club members list, the purpose of the new club, and an introduction of the club to the Employee Welfare Committee for a resolution. Grants are provided to the officially established clubs.

Satisfied Customers

In addition to smart manufacturing, OUCC also regards "meeting customer needs and services" to be a vital necessity. We believe that only technology orientation and service innovation can truly transform the company into a top-notch chemical production company.

We give full consideration to any difficulties and problems encountered by our customers with their applications. In addition to the provision of high-quality products and technical services, we have established close relationships by the promotion of "customer needs-oriented" product development and technological innovation.

We take great care to protect the security of data and intellectual property rights of our customers. We have a meticulous control system and no incidents of leakage or infringement of customer privacy occurred in 2019.

Customer Satisfaction Management

The OUCC uses the following procedures to maintain a good customer relationship. Besides, the OUCC convenes a quality management review meeting every six months in terms of customer feedback, the quality objective process performance, product compliance, the internal and external audits and nonconformity correction, resource status and demand, and the follow-up quality corrective and preventive actions, prior to the submission to the Audit Committee .

1. Occasional customer visits
2. An annual customer satisfaction survey
3. Occasional distributor meeting (sales)

In 2019, OUCC conducted a customer satisfaction survey on EG and EO. The survey content and items including: service, delivery, quantity accuracy, quality, packaging, transportation, overall satisfaction, etc. A total of 21 questionnaires were recovered, accounting for 100% of all customers in 2019. The average score of satisfaction of customers' reply reached 33.3 points (out of 35 points survey system), which showed that the customers highly praised the services of OUCC.

Customer Satisfaction Survey

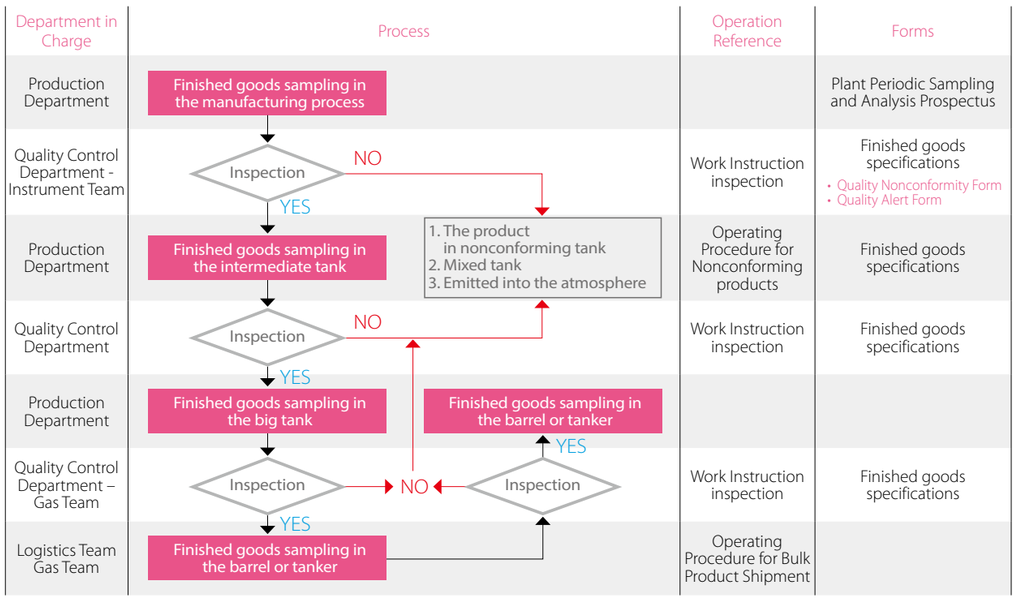
	2017	2018	2019
Average score (out of 35 points)	32.8	33.1	33.3

Rigorous Quality Management

OUCC have obtained ISO 9001 certification, and according to internal standards, we exclude the use of heavy metals such as lead and cadmium in accordance with "Restriction of Hazardous Substances Directive (RoHS)." Under a strict quality management, we win the trust of customers by the stable standards for products, and during 2019 no significant quality events occurred.

OUCC implemented the "ISO 9001 quality management system" and adheres strictly to all its requirements. We have deliberately set the product realization process, including raw materials management, incoming feedstock inspection, process and production control, product protection, process chain management, product identification and traceability, periodic sampling, field monitoring recording and storage, and statistical technique to ensure that product quality remains in line with customer demand and all the laws and regulations.

In addition, to ensure compliance of the quality management system, and to improve its effectiveness, an internal audit is carried out every six months and an annual external audit is conducted to ensure effective implementation and maintenance of the quality management system. Corrective action is taken for any nonconformity found during an audit and the root cause is also corrected or eliminated. With the strict quality management, no major product quality abnormalities occurred in 2019.



Note: "Emissions into the atmosphere" refers to Company gas plant products - nitrogen, oxygen, and argon. These are non-toxic and are emitted directly into the atmosphere in the event of failure of the finished product inspection. Also, gas is not pumped into the storage tank until it passes analysis. Any gas in a storage tank that fails analysis will also be emitted into the atmosphere. However, the latter has never happened.

Awarded the "Certification Mark for Excellent Exporters/Importers" by the Bureau of Foreign Trade, MOEA

To enhance company services and competitiveness, OUCC has been awarded the "Certification Mark for Excellent Exporters/Importers" by the Bureau of Foreign Trade, Ministry of Economic Affairs. The company will perform comprehensive evaluation and improvement measures on items such as physical and workplace security, access control, employee safety, procedural security, secure trade partnerships and emergency response. These measures will further strengthen competitiveness and reduce supply chain risk. In 2019, OUCC aims to obtain Authorized Economic Operators (AEO) certification, dedicating efforts to set up a sound and safe supply chain for customer protection.


出進口績優廠商
證明標章授予證書
東聯化學股份有限公司
Award for International Trade
Outstanding Export/Import Business Certificate
This is to certify that
ORIENTAL UNION CHEMICAL CORPORATION

AEO verification now allows us the right to simplified, expedited, and convenient customs clearance. The customs department of each of the countries through which our shipments go also recognize AEO verifications. When all the participants have AEO, the supply chain becomes an "Authorized Supply Chain" and the entire shipment process from origin to destination is simplified. A minimal amount of information is needed on export and import declarations making the process much easier and faster.

Chemical Supply Chain

The success of the OUCC business operations relies to a considerable extent on the support of the suppliers, with whose involvement the Company is able to maintain sustainable development as well as the continuous trust of the community and our stakeholders.

Today in the practice of CSR, the continued optimization of supplier management to meet customer demands for quality products as well as supply remain the challenges. We also use a comprehensive supplier screening mechanism, to reduce the negative impact on the environment or society to ensure their labors' treatment and behavior towards the environment, business integrity, and sustainable management implementation.

2019 Management Results

- 100% of suppliers followed OUCC environmental policy
- Conducted 9 supplier security training conferences
- The total number of evaluation audits on suppliers was 662
- 100% of freight forwarders passed the evaluation audit

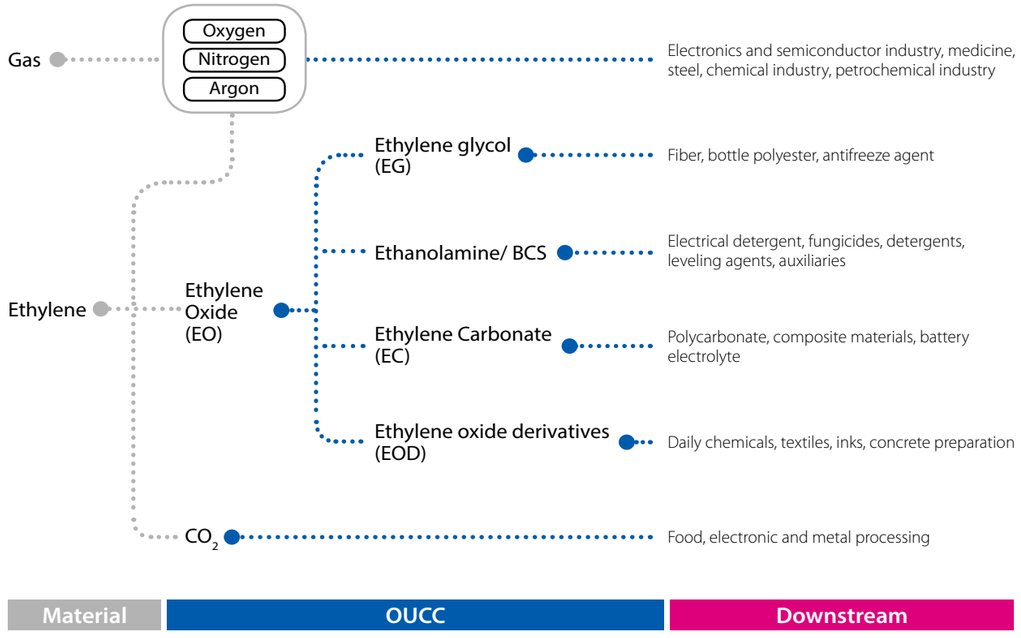
2020-2022 Short-term targets

- 100% of freight forwarders must acquire RSQAS certification
- 100% of new suppliers must sign the "Suppliers' Corporate Social Responsibility Commitments"
- Existing suppliers must complete an on-site or written evaluation

Industry Supply Chain

The upstream of Taiwan's petrochemical industry chain is crude oil, naphtha refined from crude oil, gasoline, diesel, kerosene, fuel oil, lubricant oil, and related mechanical equipment. The midstream comprises basic petrochemical raw materials produced by the cracking of upstream petrochemicals, such as ethylene, propylene, butadiene, benzene, and phenol, as well as the plastics, rubbers, and artificial fibers produced from the aforementioned raw materials through chemical reactions such as polymerization, esterification, and alkylation. The downstream flow is comprised of the processed daily consumer products, such as plastic and rubber items, cleaning agents, artificial fibers, dyes, adhesives, plasticizers, pesticides and cosmetics, with in a wide range of applications.

OUCC Industry Supply Chain



Sustainable Supply Chain Management

The operation of OUCC depends on the support of external business partners to operate smoothly. To ensure the integrity and sustainability of business cooperation, OUCC has set up management policies such as "Rules Governing Suppliers", “Environmental Policy” and "Environmental Safety and Health Policy" for supplier management. Suppliers must comply with the “Petrochemical Industry Codes of Conduct”. The declaration of compliance with environmental policies and an environmental impact assessment must be signed and sealed, and returned to the Company by all suppliers, and relevant regulations must be abided during contract phase. We should work with the suppliers to fulfill corporate social responsibility, and establish a higher environmental protection, safety, and health standard for the industry as a whole.

1. Strengthen Sustainable Communication and Promotion

To strengthen the awareness and execution of corporate social responsibility of the suppliers and contractors, which we have worked closely with on the five aspects of labor, health and safety, the environment, management, and business ethics, to establish a comprehensive supply chain mechanism, as well as lead supplier partners to commit to sustainability, participate in evaluation audits and improve health and safety management.

In addition, we take the initiative to communicate with our suppliers, encourage them to enhance their management in breadth and depth, of a co-work which combines the internal strength from the management of the company and the external supply chain partners to ceaselessly strive for the CSR. We will continue to work closely with our suppliers to strengthen these partnerships, and invite suppliers to jointly participate in social welfare activities as a start.

2. Sustainable Management Mechanism

To ensure that suppliers can understand, and to give OUCC a better grasp of supplier sustainable development, we have designed a CSR self-assessment questionnaire. All our new suppliers are also required to sign a letter of commitment. This helps our suppliers understand the content and requirements of the relevant policies and also ensures that they join us in a commitment to CSR and its implementation.

Sustainable Management Mechanism	2019 Supplier Implementation Ratio (%)
Contractors are required to sign the "Contractor’s Operation Safety Commitment to OUCC while Working in the Plant" indicating their full understanding of the rules for working on OUCC plant premises	100%
New suppliers have been required to sign the "Suppliers' Corporate Social Responsibility Commitments". This has three main aspects including employee and human rights, environmental protection, and ethical management. In 2019, a total of 96 new suppliers signed the commitment.	100%
Contractors must sign an agreement to the conditions set out in the "Environmental Safety and Health Policy Handbook" and fulfill a commitment to safety, health and the promotion of environmental protection together with OUCC.	100%

Note: 2019 Supplier signing result=number of suppliers who signed the commitment in 2019/total number of suppliers in 2019.

Evaluation Management Audit

This OUCC audit process, includes records as well as field evaluation, to ensure that suppliers are in compliance with all the relevant laws and regulations. Existing suppliers must receive and complete an annual evaluation, the items evaluated included company management, quality, lead time, price, service, and environmental safety. Suppliers were listed as qualified only if their rating score reached a specific standard.

Should an evaluation or material incident occur that rated disqualification and also resulted in damage to the company’s reputation, labor safety, product quality, or manufacturing operation, the supplier would be listed as disqualified and suspended. In 2019, 679 trading suppliers underwent written evaluations and 1 were disqualified, which qualification rate is 99.9%.

Transportation Contractor's CSR Audit

The flammable, explosive and sometimes very toxic nature of chemicals carried by tankers makes the transportation a high risk operation that can be hazardous. Negligence can lead to serious disaster. An accident can cause loss of life or serious injury, as well as damage to people's property and severely impair the image of the company.

OUCC continues to strengthen transportation safety and crisis management capabilities through contracts and audit mechanisms with outsourced transportation providers, to ensure the safe transportation of chemicals. Six forwarders who had agreed to the terms of the "Environmental Safety and Health Policy Handbook" also agreed to be audited on their commitment to environmental safety and health in 2019. The total number of evaluation audit on transport is 5 in 2019 with the passing rate of 100%.

Contract Specification	Audit Onsite
1. Contracted transport service providers must participate in the Kaohsiung City -Kaohsiung County-Pingtung County diesel self-management program and receive their qualification mark. 2. Establish environmental and safety standards. 3. A regular "Outsourcing Transportation Safety and Health Quality Audit and Survey" is performed for all the main transport service providers. The transport service provider will not be renewed if the evaluation score is below the standard score.	1. Transport company profile and transport policy 2. Security system and policy 3. Work procedures and emergency response 4. Driver qualification (employment/training) 5. Driver qualification review (evaluation) 6. Equipment safety

2019 Management Results

All the contracted tankers of OUCC have passed the inspection performed by the National Certification Institution. To enhance comprehensive safety management, we continue to communicate with contracted tankers with the target of all forwarders completing the signing of the "Supplier's CSR Commitment" in 2020. Currently, there are 5 contracted tanker forwarders in total, with the introduction of the international system as follows:

International management system	Number of contracted tanker forwarders	Rate (%)	Ratio of freight delivery (%)
ISO 9001	5	100%	97.82%
ISO 14001	3	60%	76.31%
OHSAS 18001	5	100%	97.82%
RSQAS	4	80%	95.38%

Note: freight delivery ratio= transaction amount of contracted tanker with introduction of international management system in 2019 / total transaction amount of all contracted tankers in 2019

Future goal

In response to CSR management trend, contracted tanker or transport companies will be requested to follow environmental safety and other health-related matters mentioned in the contracts. They must pass environmental management system certification, or must be free of any industrial safety accident within the previous five years. All suppliers are invited to participate in CSR management and development.

Enhance Safety Promotion

"Contractor Work Safety Rules" have been formulated to ensure the safety of personnel and equipment in the plant area. The rights and obligations of contractors working in the plant are specified in detail. One of the requirements specifies that all contractor employees entering the plant premises must be qualified and hold industrial safety certificates to ensure the safety of personnel as well as the work environment.

We organize the Contractor Safety Conference regularly to conduct two-way communication on safety issues. In the meeting the OUCC internal units will propogandize factory regulations, environmental safety operations key points, and the like, then conduct co-experience sharing of the OUCC supervision and contractor management, and temporary motions to submit the discovered problems, review, and the subsequent improvements to ensure the safety of the workplace. In the 2019 Safety Conference, the issues propogandized included:

1. Make sure to conduct safety check in hot work operation.
2. Make sure to conduct safety check by the work safety personnel.
3. Promote the legal license and management matters required for each type of work.
4. Monthly Contractor Safety Meeting, Supervision and Contractor Safety Reporting Schedule.
5. Introduce chemical product characteristics and notification of the hazards.

Preference for Local Suppliers

In addition to its own production, OUCC prioritizes the procurement of its main raw materials such as ethylene, oxygen, ethylene oxide, liquid ammonia and fatty alcohol from selected domestic suppliers and uses imports as a supplement. In 2019, local procurement amounted to NT$6,871,051,088, accounting for 66.69% (Note 2), which effectively promoted economic development in Taiwan.

Note: 1. Domestic suppliers are defined as manufacturers in Taiwan.
2. 2019 Percentage of procurement amount from domestic suppliers=procurement amount from domestic suppliers in 2019/total procurement amount in 2019 x 100%

Strive for Green Procurement

OUCC's practice in green consumption starts from its procurement, which specifies the equipment procurement standards with priority over products with energy-saving and water-saving labels or other ego-friendly labels the government approved. For example, the energy efficiency of electrical motors must comply with CNS14400 IE3. Green procurement ensures that the goals of power-saving, water-saving and a reduction of energy consumption are promoted. In 2019, the procurement amount for products with eco-friendly labels was NT$247,890 and procurement of motor rotary equipment reached NT$29,564,700.

Solid Contribution

OUCC has inherited a business philosophy of "sincerity, diligence, thrift, prudence, and innovation" from the Far Eastern Group. In this challenging new era, we continue to seek innovation and change in terms of global issues, such as global climate change, the water and energy shortage as well as social participation. With courageous, innovative spirit, and modest attitude, we are committed to creating a future of environmental symbiosis and social integration by applying sustainable strategies through "true" attitudes and actions.

- Enhancement of operational management of pollution prevention equipment, and the discharge of pollutants in accordance with environmental protection regulations.
- An increase in the capacity of pollution prevention equipment to avoid accidents by controlling the management of operations and maintenance.
- The promotion of industrial waste reduction, research for process technology improvement, and the reduction in the generation of wastewater, exhaust gas and other waste products.
- The review and promotion of various water, energy and carbon reduction programs.
- The enhancement of participation in social care and charitable donations, and the fulfillment of corporate social responsibility.

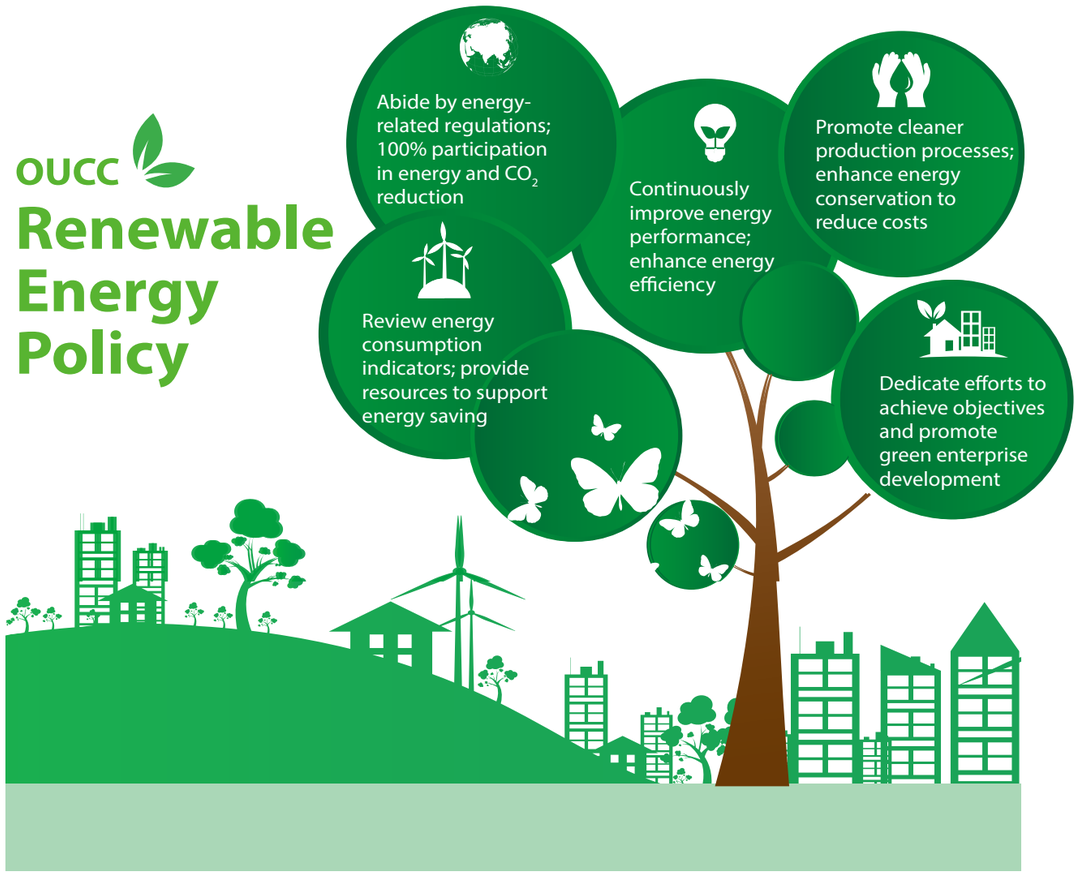
2019 Sustainable Performance

- Reduced carbon dioxide by **27,600** t-CO_2e per year
- Introduce the **ISO 50001 energy management system**
- In 2020, **ISO 50001:2018 revision system verification will be carried out**
- Complete **GHG Scope 3** inventories
- **The first** company in Taiwan to introduce **ABR technology**
- Invested NT$**68** million to set up a wastewater recycling system (System trial is scheduled in 2020)
- Establish a **waste removal and transportation platform**
- Improved waste management and control by **increasing the reuse rate of metal barrels**
- Donations to local charities and disadvantaged minority groups amounted to a total of NT$ **1.77** million

Energy Management Strategy

After the Paris Agreement came into effect, energy-saving and carbon-reduction actions driven by climate change issues have become a topic of great concern among international investors and enterprises. The reduction of energy consumption and resources in operations, as well as of greenhouse gas emissions, has become a key to the achievement of efficiency and competitiveness in the industry.

We at OUCC fully understand that "energy saving" and "intelligent operation" are vital for enterprises that are striving to adapt the operations to a low-carbon economy, so to achieve sustainability. To this end, we have introduced the ISO 50001 Energy Management System, improved the cycle through PDCA, kept track of energy usage status, worked out some appropriate energy management goals, improved energy efficiency in the plant area, and reduced our greenhouse gas emissions.



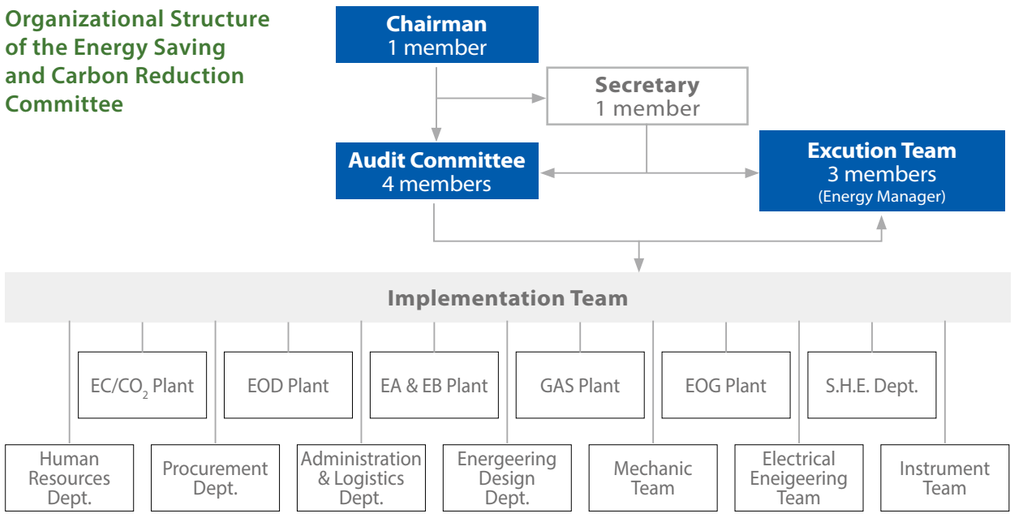
Dedicated Energy Conservation Organization

OUCC established an inter-departmental "Energy Saving and Carbon Reduction Committee" and set up "Procedures for the Organization of Energy Saving and Carbon Reduction Committee" and all the relevant mechanism, so to implement the various energy-saving measures and on-site inspections in cooperation with the competent authorities.

The Energy Saving and Carbon Reduction Committee holds quarterly meetings, including reviews of energy saving and carbon reduction plans, annual objectives setting up for energy saving, formulation of policies related to energy saving and carbon reduction, to keep track and evaluate the effectiveness of policy implementation and execution, and report progress in energy conservation to the Chairman's office for integration and analysis.

Through the formation of cross-department network, the Energy Saving and Carbon Reduction Committees collects effectively the energy-saving and innovative technological data, and solidly implements the various energy-saving programs, to achieve the goal of GHG reduction and global warming mitigation.

Organizational Structure of the Energy Saving and Carbon Reduction Committee



Note: The committee is chaired by the chief plant manager of the Linyuan plant, or a director appointed by the President. 4 audit committee members are elected from amongst the company department managers (or above) and may also be appointed by the President or chairman of the committee.

Carbon Management Targets

Schedule	Target
Short-term (2020)	● Take 2015 as the base year, 1% reduction as the average annual target ● 2016-2020: 5 years cumulative reduction of 5% (about 16,000 t-CO_2e) ● 2020 reduction target: 1%, estimated target volume of 3,210 t-CO_2e/year ● 2020: estimated achieving rate of 8.6%, of reduced volume 27,600 t-CO_2e/year
Mid-term (2021-2025)	● Annual reduction target: 2% per year, of reduced volume 6,420 t-CO_2e/year ● 5-year target: estimated achieving rate of 10%, of reduced volume 32,100 t-CO_2e
Long-term (2026-2030)	● Emissions of 2030 reduced by 20% compared to 2005

Note: 1. 2015 greenhouse gas emission is 320,000 t-CO_2e.
2. 2016-2019, the actual cumulative carbon reduction is about 50,000 tons, the cumulative reduction is about 15.65%, and the target achieving rate is 100%.

Greenhouse Gas Emission

	Unit	2019		
		Taipei	Linyuan	Total
Scope 1	t-CO_2e	2.33	56,485	56,487.33
Scope 2	t-CO_2e	61.2	281,283	281,344.20
Total emission	t-CO_2e		337,831.53	
Number of employees	persons		366	
Operating income	NT$ thousand		11,762,636	
Emission intensity	t-CO_2e / person		923.0370	
	t-CO_2e / NT$thousan		0.029	
Emission collection method	Operational control			

Note: 1. The 2019 Linyuan Plant data is certified by SGS-Taiwan and obtained ISO 14064-1:2006 certification.
2. GWP quotes IPCC (2007) global warming potential value.

Greenhouse Gas Emission (Taipei Head Office)

	Item	Unit	2017	2018	2019
Scope 1	Official car fuel consumption	L	1,354	1,091	1,028
	Official car CO_2 emissions	t-CO_2e	3.07	2.58	2.33
Scope 2	Electricity consumption	kWh	85,643	91,324	114,829
	CO_2 emission from electricity consumption	t-CO_2e	45.22	50.59	61.20
	Total	t-CO_2e	49.29	53.17	66.06

Note: 1. The above data of GHG inventory is conducted by OUCC.
2. Oil consumption is converted in accordance with the annual average unit price of the "Oil price data management and analysis system" of the Department of Energy MOEA Office.
https://www2.moeaboe.gov.tw/oil102/

Greenhouse Gas Emission (Linyuan Plant)

Unit: t-CO_2e

Item	2017	2018	2019
CO_2	50,014.1632	54,364.0685	53,623.08
CH_4	28.4125	29.0175	37.7225
N_2O	10.1022	9.3274	4.172
HFCs	2,706.7098	2,706.7098	2,820.87
Direct greenhouse gas emissions (Scope 1)	52,396.0551	57,109.1232	56,485.84

Energy Consumption

Item	Unit	2017	2018	2019
Gasoline	Kilo-Liter	15.314	1.775	11.078
	Gallon	4,030.00	467.05	2,926.55
	GJ	503.75	58.38	361.54
Fuel	Kilo-Liter	632.627	715.122	0
	Gallon	166,480.79	188,190	0
	GJ	23,973.23	270,993.6	0
Diesel fuel	Kilo-Liter	580.844	647.350	529.28
	Gallon	152,853.68	170,355.26	139,822
	GJ	21,093.81	23,509	18,602
Power	kWh	440,630,400	447,722,345	460,598,400
	GJ	1,586,269.44	1,611,800	1,657,344
Steam	ton	221,174	223,588	182,743
	GJ	577,706.49	584,011.86	549,336.97
Total energy consumption	GJ	1,631,840.23	2,490,372.838	2,225,644.06
Energy intensity	GJ/ person	4,471	6,677	6,081
	GJ/ NT$ thousand	0.13	0.17	0.19
Number of employees	persons	365	373	366
Operating income	NT$ thousand	12,755,671	14,619,729	11,762,636

Note: OUCC uses non-renewable energy.

Power Management Target and Action Plans

According to the inventory data, 70% of the OUCC greenhouse gas emissions come from electricity. As a response, we set a "power-saving" goal by promoting a series of power-saving measures, looking for suitable fuel- and steam-saving solutions. Under effective management, the actual annual power saved was about 7.7 million kWh in 2019, with a power-saving rate of 1.16%.

Schedule	Target	Strategy
Short-term (2020)	● The annual electricity saving rate is 1%	Power saving measures planned for 2020: 1. The coal-fired furnace at the EOG plant will be converted to the use of natural gas, which will also be used by the Regenerative Thermal Oxidizers. The diesel-powered pumps will also be disused. 2. EOG factory newly purchased LiBr chilling machine to replace the existing traditional air conditioning system 3. KI circulation pump renewal project in EOG plant
Mid-term (2021-2025)	● The annual electricity saving rate is 1% ● Accumulation of 5% on electricity savings for 5 years	1. Introduction of electrical energy-saving equipment, such as frequency converters, inverter motor, and fans 2. Evaluation of installations for the steam & electricity cogeneration system 3. Optimization of cooling water circulation to save electricity used by water pumps 4. OUCC will continue monitoring the energy usage and saving opportunities by combining the management structure of the energy management system with a cloud-based "Plant Power Monitoring System Platform" 5. Plans have been made to introduce a smart monitoring system to optimize and improve production processes and reduce energy consumption 6. Plans have been made for the construction of a solar PV system to reduce the use of outsourced electricity 7. All employees participate in energy conservation and carbon reduction management activities, coupled with the continuous planning and implementation of energy-saving and carbon-reduction programs
Long-term (2026-2030)	● Accumulation of 10% on electricity savings	1. Improvement in energy efficiency and carbon reduction management will carry on 2. Evaluation of installations for waste heat recovery

Note: The energy saving benchmark is calculated according to the announcement of the Energy Bureau.

Actively Promotion on Energy Saving

In response to the government's "non-nuclear home" policy, the Linyuan plant plans to construct a natural gas steam/electricity co-generation unit to meet 80% of the plant's own power consumption and improve the efficiency of clean energy use.

In addition, OUCC makes full use of technological advantages to promote clean processes by using a cloud based "Plant Power Monitoring System Platform" to monitor energy use by the plant in a structured way and to find energy-saving opportunities. In addition, the carbon reduction measures of a number of office area have been promoted, including electronic administrative operations, monitor and control of photo-copying over the entire factory, and the promotion of a paperless system for online management, to further contribute to the reduction of GHG emission.

2019 Energy Efficiency Improvement Results

	Energy saving project	Estimated annual saved energy consumption (10,000 kWh)	Estimated annual carbon dioxide reduction (t-CO_2e)
EOG Plant	To save both water and electricity, the water distribution in cooling towers #1 and #2 was readjusted and optimized and cooling water pumps were no longer used	603.7	3,218
EA Plant	Pump load adjustment of production processing area	11	59
EC Plant	CO_2 is the raw material used in the production of EC and so the process contributes to the reduction of CO_2 emissions	-	23,497
EC Plant EOD Plant	A frequency converter was installed on the mixer of reactor R8-501 to reduce power consumption	10.5	56
	Production schedules were adjusted and centralized, and 8 production break days were planned for each month to reduce cooling water pump power consumption	131	698
	The cooling water pipeline of reactor R-1202 was fitted with a butterfly valve to reduce the water flow and energy consumption	13.6	73
Saved electricity consumption of 77.7 million kWh, and reduce carbon emission of 27,600 t-CO_2e per year			

Energy Saving Improvement Results

Type	Item	Unit	2017	2018	2019
Process Improvement	Total Investment	NT$	-	41,038,203	12,710,000
	Energy Saving	GJ	12,576	58,855	26,828
Equipment Upgrade	Total Investment	NT$	48,000	32,883,708	830,000
	Energy Saving	GJ	587	84,702	870
Total	Total Investment	NT$	48,000	73,921,911	13,540,000
	Energy Saving	GJ	13,163	143,557	27,698

Note: Estimation of energy saving capacity compared with that of the previous year, based on an assumption that the energy-saving measure lasts 12 months.

New Green Sustainable Manufacturing Processes

Key Issue

- Enhance the plant energy saving and carbon reduction benefits
- Respond to the tightening emission standards set by the Kaohsiung City Government in July, 2018
- Steam boilers currently use heavy fuel oil, and it is not economical to revamp the boilers
- OUCC mainly uses outsourced steam for manufacturing processes, which is equivalent to the cost of steam generated by natural gas boilers. The lack of independent energy supply capacity will result in higher risk with respect to the maintenance of stable production at low cost
- Increase production stability

Green Strategies

- The coal fired furnace and Regenerative Thermal Oxidizer (RTO) at the Linyuan plant will now use clean low-carbon natural gas as its fuel source, with highly efficient waste heat recovery equipment installed. To ensure safety at the manufacturing and processing sites in the plant area, high- and low-pressure natural gas is obtained from different sources to supply the cogeneration system as well as the furnace and Regenerative Thermal Oxidizer (RTO) systems, work is expected to be completed by 2020.

Transformation Plan

Plan	Investment Amount
Fuel gas piping installation for the low-pressure natural gas metering station as well as the coal-fired furnace and Regenerative Thermal Oxidizer (RTO) system.	NT$ 11 million

Expected Benefits

- The revamped coal fired furnace and the Regenerative Thermal Oxidizers (RTO-I/RTO-II) now use natural gas instead of diesel, resulting in an estimated electricity saving of 3,731 kWh and diesel consumption decreased by 650 kL and carbon reduction of 1,696 t-CO_2e per year, as diesel powered pumps are no longer in use. The project is expected to be completed by September, 2020.

The Paving and Rain/Polluted Water Diversion and the Flood Retention Construction in the Plant Area

Project Description

- This project was started in 2015 to reduce the long-term problem of flooding and also served to beautify the factory surroundings.
- The production processing areas around each plant unit at Linyuan were paved and underground discharge pipelines were relaid and adjusted at the EOG plant.
- Rain and polluted water diversion was established at the leaked wastewater collecting pit of EO loading station, EG/EA filling stations and the recovery system. Modifications were made to the draining chutes to ensure the separation of rain and polluted water.
- The drainage system surrounding the plant was reconstructed and a flood retention pond was built.

Project Schedule

- Planning started in 2014 and construction in phases starting in 2015, and the overall project was completed by the end of 2019.

Total investment

- NT $79.5 million

Expected Benefits

- The production processing areas around each plant were paved to beautify the Plant area.
- Both the rain and polluted water are diverted to reduce environmental and industrial safety issues.
- The reconstructed drainage system surrounding the plant which improves the long-term flooding problem, and the built flood retention pond are aimed to mitigate the impact of climate change.

The EOG Plant Cooling Water Pipeline Modification Project

Project Description

- Project description before modification
  The EOG plant gas circulating cooler (TT-103) and water circulating coolers (TT-201N/TT-201) were originally supplied with cooling water from tower #1. Due to the outdated design of tower #1, there was no way for maintenance personnel to get into the tower #1 to fix an abnormal fan on account of the high temperature resulted from the lack of isolation inside tower #1, without causing the reaction area to lower the loading at the end.
- Project description after modification
  Upon reconfirming the overall water distribution and heat loading of EOG, the water circulating coolers (TT-201N/TT-201) are now provided with cooling water from tower #2, the interior of which can be isolated for maintenance. Water from cooling tower #1 continues to supply the TT-506/TT-402/TT-410 coolers. With water distribution of both #1 and #2 optimized and the cooling water pump disused, the further saving of water and power can be enhanced.

Project Schedule

- The planning began in 2017 and construction was completed by early 2018. Water volume adjustment and testing were done by mid 2019, and one water pump each on towers #1 and #2 was disused.

Total investment

- NT $12.7 million

Expected Benefits

- Operation of the EOG plant becomes more flexible and stable.
- Discontinuing the use of #1/#2 cooling water pumps (450hp and 500hp) results in annual savings of approx. 6 million kWh at a cost of NT$13.27 million, and reduces the annual greenhouse gas emissions by 3,218 tons of CO_2e.

Waste Heat Recovery

Project description

- To save energy, a new 370 USRT LiBr multi-effect chilling system is installed to recycle and reuse the excess steam of Linyuan plant. With the excess low-pressure steam from the EOG plant production processing area as the heat source and cooling water from tower #1 as the cold source of the 15℃ chilling water to replace the old screw type chiller unit for air conditioning in the EOG control room, the laboratory, and R&D buildings to save a significant amount of energy and electrical power.

Project schedule

- Planning started in 2019, and the construction is scheduled to be completed in Q3, 2020

Total investment

- NT $9 million

Expected Benefits

- The new 370 USRT LiBr multi-effect chilling system, which replaces the old screw type chiller unit for air conditioning in the EOG control room, the laboratory, and R&D buildings, has reduced electricity consumption by 304.5 kW as compared to the original arrangement. The estimated annual electricity savings are approx. 2 million kWh, equivalent to the annual reduction of 1,066 t-CO_2e.

The Mitigation of Transportation Emission

In response to the need to save energy and reduce carbon emission, we require employees at the Linyuan Plant, the main manufacturing base of the OUCC, to take use of the company shuttle bus, or to join the carpool system for commuting, so as to cut down on the use of vehicles and reduce the indirect emission of greenhouse gases (Scope 3).

Program		Description	2019 Result
Action 1	Promote video conference	● Establish a remote video conference system. ● Increase the number of video conferences to reduce the frequency of business travel between Taipei and Kaohsiung. ● In 2019, new multipoint video equipment were added to cloud platform services.	The monthly management meeting as an example: reducing 3,355 kg-CO_2e
Action 2	Encourage employee commuting	Continuing to promote carpooling as an approach to reduce the emissions of employee travel, and also using it as a reference basis for planning more efficient transportation plans. The following measures have been taken to reduce greenhouse gas emissions: ● Regulate the use of new-style vehicles within 5 years for transportation vehicles of suppliers, prompting suppliers to replace with new energy-saving models. ● Earlier departure for shuttle buses so as to avoid traffic peaks, shorten travel time, and reduce greenhouse gas emissions.	Employee commuting carbon emission of 347.74 t-CO_2e
Action 3	Enhancing the fuel efficiency of outsourced tankers	● We have introduced stricter specifications for outsourced tankers, and the outsourcing contract now stipulates that no tankers may remain in use for more than 15 years. ● This has encouraged the use of new energy-saving tankers. The CO_2 emission and energy used in the transportation process has been effectively reduced by this measure.	Outsourced transport emissions of 23,110 t-CO_2e

Note: Energy Consumption of contracted transportation is 321,805GJ.

Resources Recycling

Water Resource Management

Schedule	Target
Short-term (2020)	● Daily water consumption reduced by 2% ● Daily saving 100 metric tons of water
Mid-term (2021-2025)	● Daily water consumption reduced by 20% ● Daily saving 1,000 metric tons of water
Long-term (2030 and beyond)	● Daily water consumption reduced by 50% ● Daily saving 2,500 metric tons of water

Water Resource Usage

The source of water for the OUCC Linyuan plant is the Fengshan Reservoir, and the water is treated before use. The Plant is located in the industrial park, and waste water is discharged into the industrial sewers, which does not affect the water source. To cope with the risk of water shortage or floods caused by climate change, we have formulated a comprehensive water resource management plan in cooperation with the local government, and have also set water resource management objectives to handle emergencies and water conservation measures.

The OUCC will continue to face the challenges involved in the protection of the environment and water resources and promote improvements in our processes and technologies and actively seek for the best water management solution to reduce water consumption. It has also been planned to set up a wastewater recovery system in Linyuan plant, which is scheduled to conduct trial and performance tests in April 2020 and will produce renewable water of about 1,000 tons per day, with more than 70% wastewater recovery rate to be used for water supply in cooling towers.

Water Usage Statistics

Unit: million l

	2017	2018	2019
Linyuan Plant	2,179.929	2,181.603	2,155.088
Taipei Head Office	0.981	0.724	0.782
Total	2,180.910	2,182.327	2,155.870

Note: The 2017~2019 figure is based on the water bill data.

Water Usage (Linyuan plant)

Unit: million l

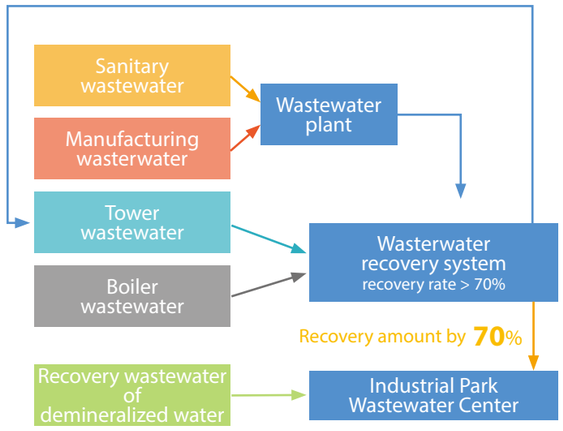
	Description	Statistics
Water withdrawal	Freshwater (≤1,000 mg/L Total Dissolved Solids)	2,155.088
	Other water (>1,000 mg/L Total Dissolved Solids)	0
	Total water withdrawal	2,155.088
Water discharge	Freshwater (≤1,000 mg/L Total Dissolved Solids)	1,341.546
	Other water (>1,000 mg/L Total Dissolved Solids)	0
	Total water discharge	1,341.546
	Emission rate (%) (note4)	52.59%
	Primary treatment (note1)	595.464
	Secondary treatment (note2)	595.464
	Tertiary treatment (note3)	0
Water recycled/Water saving	Recycled water volume from production processes	939.08
	Recycled percentage from production process (%) (note 5)	70%
	Total recycled water volume	187.82
	Total recycled percentage (%) (note 6)	7.36
	Number of uses of a single drop of water (note 7)	1.07

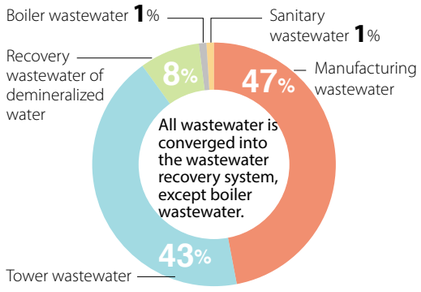
Note: 1. Primary treatment removes solid waste, oil, sand, hard particles and other precipitable substances from the sewage through filtration, sedimentation, and feathering.
2. Secondary treatment involves the decomposition of organic compounds in the sewage to inorganic substances by passage through a trickling filter, aeration, and disinfection.
3. Tertiary treatment involves sand filtration, activated carbon filtration, and the use of microalgae for the removal of heavy metals.
4. Emission rate (%) = (total water discharge/total water withdrawal) X100%
5. According to the test run of wastewater recovery system, process recovery rate = 70% recovery rate of wastewater system.
6. Total recovery rate(%) = (total Water recycled/total water withdrawal) X100%
7. The number of uses of a single drop of water = (running water usage+reclaimed water usage)/running water usage.

Water Recycling Measures

We strive to implement the water resources management mechanism in the plant area through innovative technologies to improve the efficiency of water resource usage and reduce the environmental risks of water shortage and water resource recycling in the plant area.

Measures	Description
Wastewater recovery	The measures used are different from those used by other traditional industries where partial recovery or single recovery is used (such as the recycling of cooling tower wastewater only). OUCC expects to improve the wastewater recovery rate to more than 70%, and this includes processing wastewater as well as cooling tower wastewater.
New technology	In the recycling process of processing wastewater and cooling tower wastewater, the wastewater is treated with UF/RO, a mature membrane filtering technology, and then recycled to the production processes according to government policy on water conservation.
Enhanced recovery efficiency	To effectively enhance the recovery rate, our plant uses a two-stage RO process which increases recovery efficiency from 50% to 70%, and it is estimated that 1,000 tons per day can be recovered for use in cooling towers and pure water processes. In addition, since the quality of the recycled water is better than that of ordinary industrial water, the recovery of cooling tower water by this process reduces the amount of acid and anti-scaling agents that used to need.





The Number One in Taiwan to Introduce ABR Technology

Although the RO process produces very pure water with high economic value, the wastewater produced by the process has a high ionic concentration with high COD. RO concentrated water is mixed with other low-concentration wastewater in the general water recycling systems, which makes it difficult to dissolve organic substance in the water environment.

OUCC pays great attention to the effect of poor water quality on the environment, and has been the first in the industry to introduce ABR technology for the treatment of concentrated wastewater from the RO process and to reduce COD and other environmentally harmful substances to fulfill our environmental responsibility.

The Advanced Biological Reactor (ABR) employs new technology to break down industrial wastewater that is difficult to treat. This technology relies on special bacterial flora that form a biofilm on high-efficiency carriers. Under aerobic conditions, the bacterial activity is maintained by decomposition and elimination of the difficult-to-managed high chemical oxygen demand (COD) of the wastewater.

Wastewater Treatment & Discharge

The chemical plant wastewater contains incompletely reacted raw material, and/or in low medium of solvent used in production. Any wastewater or liquid waste produced in the manufacturing process that has not been properly treated would be a serious hazard should it be discharged into the environment.

In this regard, the OUCC abides by the "Procedure for OUCC production process wastewater discharge" stipulating emission limits of COD<90ppm and SS<25ppm. The total treated wastewater is piped into the Industrial Park Joint Wastewater Treatment Plant. The initial rainfall (about 30 minutes) is collected in a storage tank and then passed into the wastewater treatment plant for further processing. The waste water discharge meet the limits in 2019.

Effluent Quality Test

Item	H1/2019	H2/2019
	Detected value	
pH	8	7.7
$CHCl_3$	0	0.00419
COD	21.2	28.6
NH_3	0.13	0.16
ArOH	0	0
NO_3-N	5.41	16
Suspended Solids	4.7	9.3

Wastewater Discharge

	2017	2018	2019
The total amount of wastewater discharged m^3/year	609,908	577,315	595,464
Discharge destination	Piped into the joint wastewater treatment plant and sea area in Kaohsiung		
Water quality and discharge	In line with the Effluents Standard / activated sludge treatment method		
Standards, methods, and assumptions	Joint wastewater treatment plant limit		

Note: 1. The total amount of wastewater discharge in 2019 was 595,464 tons, a slight increase of 3% compared with 2018.
2. The amount and quality of water discharged from 2017 to 2019 meet the discharge limits, and there are no incidents that exceed the standard.

Environmental Prevention Mechanism

The chemical processes employed by OUCC and others in the same industry pollute the air during the production process. If this is not managed properly, it can cause a potential or real negative effect on local communities. We abide by the policies of the competent authorities and manage all our various environmental issues such as pollution prevention and waste disposal. We have also established and followed the "OUCC CSR Policy" to assess environmental risks and possible future environmental problems for each of our many production processes. We invest in new equipment in a continuous effort to reduce emission and pollution.

In 2019, we used innovative technology to establish a production PI system to monitor the status of the plant operation areas. This real-time monitoring system for environmental data of the plant allows employees to monitor the operation of both production and environmental protective equipment simultaneously. This allows us to ensure equipment availability and compliance with the relevant environmental regulations.

Air Pollution Control and Prevention

The Linyuan plant has acquired eight Fixed Pollutant Operator Permits from the Environmental Protection Bureau of Kaohsiung City Government in accordance with Article 24 of the Air Pollution Prevention Act. The main air pollutant emissions are: Volatile Organic Compounds (VOCs), Ethylene Oxide (EO), and ammonia.

Air Pollution Prevention Equipment

Type	Number	Pollutants	Pollutant Removal Efficiency
Regenerative Thermal Oxidizer, RTO	2	VOCs	>95%
Direct Fired Thermal Oxidizer, DFTO	1		
Catalytic oxidizer	1		
Scrubber	7		

Air Pollution Control and Prevention

Unit: Kg

Pollutant Emission	2017	2018	2019
NO_x	7,907.49	7,456.87	2,272.05
SO_x	8,445.96	8,221.11	4,793.9
POP	0	0	0
VOC	43,388	44,857	44,568
HAP	0	0	0
PM	1,266.35	2,242.06	990.53

Note: 1. According to the regulations of the Kaohsiung City Government Environmental Protection Bureau "Pollutant Emission Quantity Authorization Documentation for Existing Stationary Pollution Sources", emission limits are as follows: Nitrogen oxides: 27,975 kg/year; sulfur oxides: 34,837 kg/year; volatile organic compounds: 56,105 kg/year; particulate matter: 5,051 kg/year.
2. The calculation of air pollutant emission is based on the declaration and review of the "Integrated Management System for the Declaration of Air Pollution Charges and Emission Quantity from Stationary Pollution Sources".
3. The calculation coefficient is done by inspection tests, where the actual pipeline emission data is collected by OUCC and sent to an inspection company authorized by the Environment Protection Administration.

Waste Management

All the waste generated by the OUCC Plant is entrusted to qualified waste disposal contractors for removal. There was no breach of contract by any of our waste disposal contractors in 2019. In addition, recyclable items are entrusted to community charity organizations for recycling after preliminary classification in the plant.

We aim to achieve a cumulative waste reduction of 5% by 2020. Waste management and control was strengthened in 2019 by an increase in the recycling rate of the metal drum. We have also established a "waste removal platform" to effectively handle the type and quantity of waste that is ready for removal at the plant. This has been effective in reducing the random disposal of unfamiliar waste by the personnel, which may adversely affect the environmental safety of the plant area.

Waste Disposal

Unit: tons

Type	Item	Method	2017	2018	2019
Total weight of hazardous waste	pH ≤ 2.0 Waste acid	Chemical treatment	0.051	0.08	0.155
	Total		0.051	0.08	0.155
Total weight of non-hazardous waste	Waste iron barrels, lubricants	Reuse	67.05	175.79	100.87
	Composting	Physical treatment of organic sludge	378.92	361.98	197.32
	Non-hazardous organic waste liquid	Reuse	234.1	0	0
	Waste Mixed plastics, wood mixtures, oil mixtures, household garbage,	Incineration	158.08	213.98	100.62
	insulation materials, fire-resistant waste, Non-harmful slag	Landfill	85.96	163.98	47.36
	On-site storage (Note3)		766.03	0	0
	Others (Note4)		60.90	30.54	84.31
	Total		924.11	923.59	530.48

Note: 1. Reuse incudes energy reuse.
2. Incineration waste includes: Mixed plastics, wood mixtures, lubricants, oil mixtures, household garbage, etc.
3. Landfill includes the calculation of waste undelivered out of plant.
4. Other waste includes: Waste ion exchange resin, sandblasting waste, non-hazardous sludge, waste paint, paint residue, other single non-hazardous scrap metal or metal scrap mixture, waste wire and cable, non-hazardous organic waste liquid or waste solvent...etc.

Recycling Statistics

Unit: Kg

	Paper	Fluorescent tubes	Plastics	Glass	Household appliances	Total
2017	1,490	110	5,550	1,460	750	9,360
2018	5,730	40	5,200	30	0	11,000
2019	5,500	0	5,000	150	100	10,750

Environmental Issues Appeal Mechanism

The OUCC has stipulated operating procedures for Environment, Labor Safety and Health, Internal Quality Control, and External Communication. All advices, complaints or grievances made by the public are dealt with by the Environmental Safety Team or the shift supervisor and are all recorded in the "External Communications Log." The Central Security Committee depends on the Log content to ensure adequately trained security personnel respond in the shortest time. Minutes of any meetings held about the issue or investigation are kept and investigation or review of the issue must be carried out as soon as possible, depending on the severity of the matter.

We have "Liaison for Stakeholders" and "Liaison for Environmental Protection Business (07-6413101 #2302)" setup with several smooth communications channels. Contact information is also provided on the company website to ensure any environmental issues are dealt with immediately. There have been no complaints filed with the company over the last 7 years after effective management was implemented.

The Environmental Protection Expenditures

Unit: NT$

Item	2017	2018	2019
Environmental protection expenditure	19,337,291	36,530,021	17,784,642

2019 Environmental Regulation Management Improvement Mechanism

Item	Amount (NT$)	Corrective Action
VOC leakage exceeded the standard 2019.04.01	300,000 fine	1. Daily VOC self-testing and weekly sampling is carried out by the VOC sampling team at the Linyuan plant as well as weekly sampling at the jurisdiction administrator level. 2. Selected key high potential areas for component inspection in the jurisdiction. 3. The high/low concentration MF-1903C/D collection tank wastewater pipe was replaced and is now airtight. VOC is collected properly and there is no leakage. 4. We hold regular inter-departmental group meetings to discuss the causes of leak and to improve our current implementation methods.
The odor emanating from the outlet pipeline of the Regenerative Thermal Oxidizer RTO1 exceeded the relevant standards 2019.01.18	200,000 fine	1. The intake/exhaust/purge processes of RTO-1 have been optimized so that the gas discharged into the chimney receives complete treatment and no odors are generated. 2. A VOC meter is used to test the RTO discharge port every month to determine that the equipment is functioning correctly. 3. Regular outsourced sampling checks of the outlet pipeline must be carried out and an analysis for emanation must be carried out at biannually intervals.
VOC leakage exceeded the standard 2019.06.18	300,000 fine	1. Quarterly infrared instrument leak detection tests are done for all VOC components. 2. The high potential area is subdivided into 4 sub areas, each with about 300-400 VOC testing spots. There are four shifts dedicated with respective responsibility to conduct the testing twice a month. 3. The forepersons are responsible for the supervision and retesting in each area. 4. Comprehensive training sessions are held for the testing staff quarterly to ensure that all testing done is uniform and correct. 5. When valve parts are changed, or pumps, filters or bypass switch valves receive maintenance checks, VOC retesting is done immediately. When any production steps or procedures are changed or modified, VOC tests are performed to ensure any vulnerable valves are free of leaks. 6. The material reliability of components and potential leaks are discussed at bi-weekly VOC improvement meetings. Regular testing and replacement plans are scheduled.

Note: VOC is a volatile organic compound, which is an air pollution leak. There were no major chemical leaks in 2019.

Social Inclusion

The OUCC applies their corporate spirit of "taking from society, giving back to society" to sponsor charity groups or to engage in activities of the affiliated charitable foundation of the company, of which sponsorship is subject to the Company's yearly operating performance. We also engage in feedback to the community and collaborate with suppliers to maintain our partnerships. Suppliers and employees are also invited to participate in social welfare activities with the support of enterprises.

The OUCC has occasionally arranged blood donation drives, held along with FE Group donation activities such as the Taipei Expo, August 8th typhoon donations, 921 earthquake donations; and spontaneous employee donations to disadvantaged groups and volunteer work such as donating goods to children's homes, supporting Shanwei primary school by providing new desks and chairs, providing emergency assistance for residents of Linyuan district and participating in beach cleaning activities. The total amount donated to disadvantaged minority and charity groups in 2019 exceeded NT$ 1.77 million.

Participation in the Far Eastern Group 70th Anniversary Charity Events

2019 marks the 70th anniversary of the Far Eastern Group. The Group business spans many industries, including food, clothing, housing, transportation, education, entertainment and charity. OUCC actively participates in the "Happy 70" series of events to spread the concept of "Together for a Promising Future" and "Hand in Hand, to Create a Better Future Together", expressing our deep social commitment to the land and gratitude to the people of Taiwan.

These charity events are aimed at promoting from seven aspects, including art and culture, environmental protection, education, healthy living, social participation, community care, and consumer commitment to the different demographic groups in Taiwan. This includes children in particular, the rural areas, long-term care and the general public, in which we strive to create synergy and to contribute to society.

Community Environment Green Beautification

To make a contribution to air purification in the industrial zone by the development of a green roadside landscape, OUCC applied to the Ministry of Economic Affairs to sponsor environmental maintenance, adopting about 116 trees, 2,028m^2 of sidewalk and 4,020m^2 of roads in 2019. The company will be responsible for cleaning, watering, sanitation maintenance, pest control, road repair and cleaning up after a natural disaster, as well as supplementary planting according to plant density.

Kaohsiung City Underground Industrial Pipeline and Industrial Park Regional Joint Defense Drill

The Industrial Development Bureau of the Ministry of Economic Affairs and the Kaohsiung City Economic Development Bureau carried out the "2019 Kaohsiung City Large Scale Underground Industrial Pipeline and Industrial Park Regional Joint Defense Practice Drill" in the Linyuan Industrial Park. Simulations of the leakage of toxic chemical substances from underground industrial pipelines were carried out. This was done to improve the joint defense response by these organizations and the government to complex pipeline accidents in the industrial park.

https://money.udn.com/money/story/11799/4135168

2019 Social Inclusion

1. **OUCC sponsored the Kaohsiung Municipal Linyuan Senior High School Girls' Handball Team to travel abroad for a competition.**
   To give back to the society and to care for the people, OUCC participated in local charity activities by sponsoring travel for the Kaohsiung Municipal Linyuan Senior High School Girls' Handball Team to go abroad to take part in a competition. The company was awarded a certificate of appreciation from the Principal, Huang Bihui.

2. **OUCC made a charitable donation to the Yongan Children's Home in Kaohsiung City.**
   In a spirit of good corporate social responsibility, which is to give back to society, to care for the people, and to help the disadvantaged, the company donated a batch of goods to the Private Yongan Children's Home in Kaohsiung City, and received a certificate of appreciation.

Year 2019 Contributions to society	● OUCC personnel teamed up with local organizations to participate in the Linyuan District Dragon Boat Festival race, and the company made a donation of NT$70,000 to the team. ● A donation of NT$80,000 was made to the Gangshan Reading Club. ● The Kaohsiung City dual-equipment policy was also sponsored.	**Total donation NT$1.77 million**
Year 2020 Expansion of social participation	● Periodic participation in blood donation drives ● Donations to organizations that support disadvantaged groups ● Volunteering in social care activities ● OUCC has sponsored the procurement of COVID-19 pandemic prevention supplies	

Donation

Unit: NT$ ten thousand

Type	2017	2018	2019
Charity	25	426	14
Local Participation	147	160	163
Goods Donation	0	2	0
Total	172	588	177

Cash Donation Activity

Recipient	Activities	amount (NT$ 10 thousand)
Linyuan Police Station	Friends of the Police Association	1.9
Linyuan Precinct		1.9
Taiwan Industrial Safety and Disaster Prevention Society	The first international chemical and coal industry loss prevention, process safety and thermal analysis seminar	10
Linyuan District Office	Worked with the industry in Linyuan to sponsor the Linyuan District Office for community activities, such as funds, emergency assistance	88.1
Village in Linyuan	Heads of boroughs & neighborhoods gathering activities, festivals, etc.	27.0
Linyuan Village Promotion Association, Sijhou Community Development Association, Linyuan Environmental Protection Association, etc.	Clubs and association activities	21.8
Linyuan Village Promotion Association, temple, etc.	Caring for the disadvantaged	10.3
ROC Slow Pitch Softball Association, Linyuan Township Badminton Association, Petrochemical Industry Trade Union, etc.	Ball games	9.2
Longji Temple, Donglong Temple, Fude Temple, etc.	Temple festival	3.0
District Office or Heads of Boroughs	Funeral subsidies and economic assistance for local residents	1.4
Linyuan Village Promotion Association, Wufu Village, Association, etc.	Sponsored gatherings at neighborhoods, communities and associations.	1.1
Environmental Promotion Association, etc.	Beach cleaning, mountain cleaning, and disinfection activities after flood	1.0

Prudent Thinking

The OUCC is committed to the provision of a safe and healthy working environment and have made "zero accident, zero injury, and zero pollution" our goal. We have also complied with and introduced the relevant international SHE standards and regularly review the implementation of environmental health and safety to achieve protection of the global environment and the safety and health of our employees.

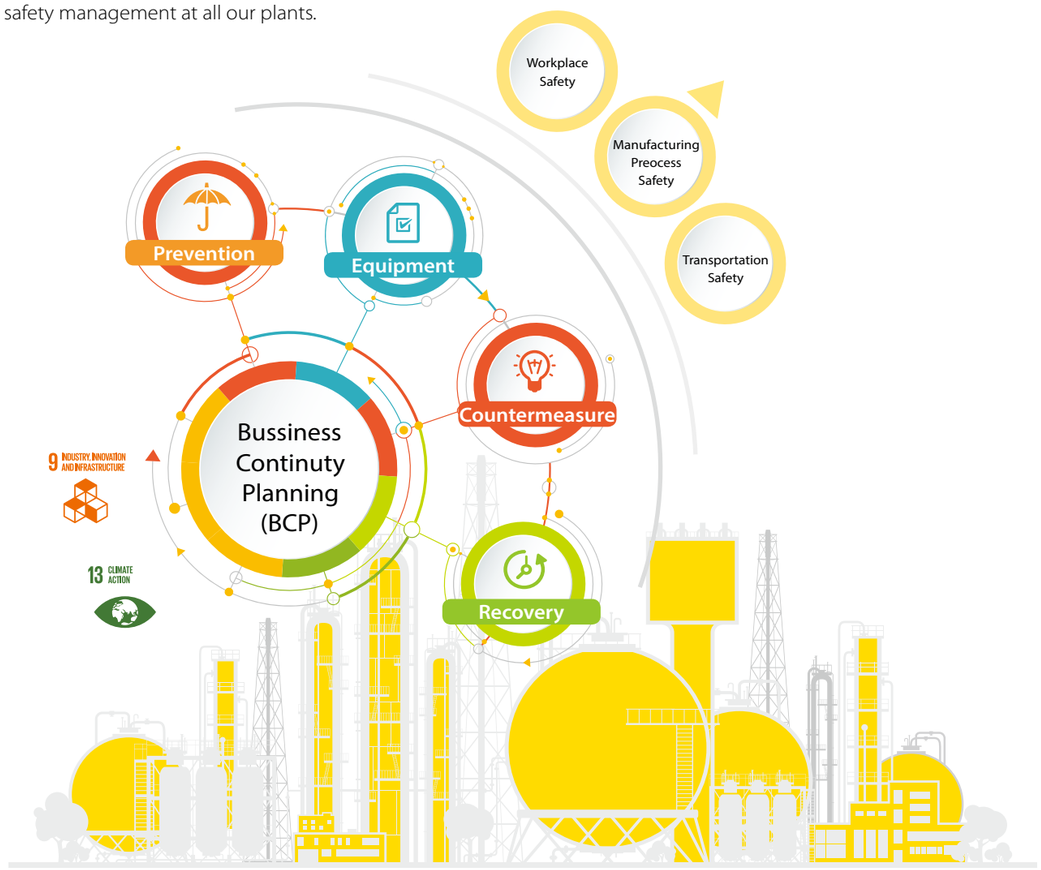
The OUCC supports "responsible" industrial development and improvement in collaboration with the Taiwan Responsible Care Association (TRCA). We are committed to the pursuit of balanced industrial safety, health, and environmental protection in accordance with the purpose of the TRCA.

2019 Sustainable Performance

- Accumulated record of **4,310,000** disaster-free man-hours
- **100**% of freight forwarders have acquired the OHSAS 18001 occupational health and safety management certification
- The **7** operational environment tests are in compliance with the relevant standards
- Labor representatives accounted for **50**% of the occupational health and safety committee members

Safety management is one of the most important issues in the chemical industry, and is also the primary concern of our stakeholders. Therefore, OUCC continues to work on the internal chemical safety management system for a long time, applies the concept of potential risk assessment as "only safer, no safest" in production and manufacturing processes, and evaluate possible disasters through pre-conception and simulation. This attitude contributes to the establishment of a comprehensive approach to "Prevention Measures", "Chemical Transportation Safety", "Manufacturing Process (Plant) Safety" and the "Emergency Contingency Plan". We apply simulation to predict the occurrence of possible disaster situations, and make appropriate corrections to address deficiencies or shortcomings, continuing to improve safety management at all our plants.

2019
Accumulated record of
4,310,000
Disater-free man hours



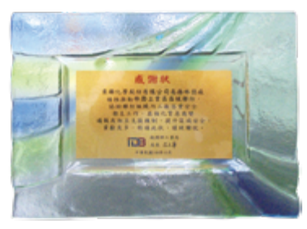
Zero-pollution Workplace

The OUCC, upholding the spirit of self-discipline, has joined the Taiwan Responsible Care Association (TRCA) to promote responsible care, and taken up six standard management guidelines, which include process safety, emergency response and safety, distribution safety, contractor safety, waste and reduction management, and product safety management.

To prevent failure and detection of abnormal conditions in a timely way, hence, the 5S safety team is formed by senior managers in charge of the plant, perform weekly regular inspection according to designated area, record any defects on the equipment or environment, and submit comments to the inspected unit for improvement.

Record of Awards

Year	Awards
2017	● With the smoke-free and health promotion measures implemented in the workplace of OUCC to establish a quality and healthy work environment, OUCC was rewarded the Badge of Accredited Healthy Workplace issued by the Health Promotion Administration, Ministry of Health and Welfare. ● The Plant participated in the "2017 Kaohsiung City Promotion of the Workplace 4-Cancer Screening Incentive Plan" of the Department of Health, Kaohsiung City Government and won the award. ● Occupational Safety and Health Administration, Ministry of Labor authorized the Industrial Safety and Health Association (ISHA) of the R.O.C. (Taiwan) to issue the "2.95 Million Accident-Free Man-Hours" certificate for encouragement.
2018	● Invited to co-organize the "Linyuan Jhongyun Beach Autumn Beach Cleaning Activity" held by the Environmental Protection Bureau, and received a Certificate of Appreciation from the Environmental Protection Bureau.
2019	● We participated in the "2019 Promotion for Corporate Sponsorship of Air Purification Equipment for Schools", and received a Certificate of Appreciation from the Kaohsiung City Government. ● The Occupational Safety and Health Administration (OSHA) of the Ministry of Labor entrusted the Industrial Safety and Health Association (ISHA) to issue a certificate of "4.05 Million Accident-free Man-Hours" to the OUCC Linyuan plant. ● OUCC participated in the "2019 Kaohsiung City Large scale Underground Industrial Pipeline and Industrial Park Regional Joint Defense Practice Drill" organized by the Industrial Development Bureau of the Ministry of Economic Affairs, and received a Certificate of Appreciation. ● The company was commended and rewarded a Certificate of Appreciation for the "Active Promotion of Linyuan Industrial Park Regional Joint Defense" by the Industrial Development Bureau of the Ministry of Economic Affairs. ● OUCC acted as convener of the Linyuan Industrial Park regional joint defense organization and actively promoted the operation and strengthened joint defense. The company received an "Exemplary Model of the Park" Certificate of Appreciation from the Linyuan Industrial Park Service Center. ● The Linyuan Industrial Park Service Center held the "PSSR Safety Review" for independent management and received an official letter affirming the participation of OUCC employees.



Comprehensive Environmental Safety and Health Management

The OUCC has received ISO 14001 environmental management as well as OHSAS 18001 occupational health and safety management system certifications which ensure standard control and compliance. The OUCC incorporated ISO 45001 in 2019, which is expected to pass the verification in May 2020 and obtain a declaration. In addition, HazOp study was carried out for each plant before construction began, and the procedure for the management of change (MOC) is mandatory and must be carried out in advance to ensure safety remains intact after any changes related to process equipment, chemicals, technology, security, and operation have been made.

Solid Environmental Protection Organization

The Occupational Health & Safety Committee of OUCC held regular meeting every three months for the review of the occupational safety and health cases and coordination, and a full record is kept and announced to all employees. The chief plant manager is the appointed convener and there are 14 committee members, including 7 labor representatives, which accounts for 50% of the members.

Dedicated Environmental Protection Personnel

Air pollution dedicated staff: 3 class A dedicated members

Waste/Polluted water dedicated staff: 2 class A and 2 class B dedicated members

Toxic chemicals dedicated staff: 4 class A trained and qualified members

Waste goods dedicated staff: 1 class A trained and qualified member

Diversified Health Management Project

OUCC promotes a healthy employee workplace and provides comprehensive healthcare resources that focus on the health of employees. In terms of corporate social involvement, OUCC has set up complete evaluation mechanisms and health management programs for the families of employees and for nearby communities. These include health checkups, health consultations, health education, diversified health seminars, employee assistance programs, as well as programs for the prevention of human-induced hazards. This service helps employees to manage their own health, and creates a friendly and healthy work environment.

Program	Content
Health care measures	1. All our plants have first-aid kits in place, and we keep them clean and replenish complementary item. 2. Set up the "Automated External Defibrillator (AED)". 3. There is a full-time physician and a nurse stationed in the Linyuan plant to provide employees with healthcare and counseling.
Health checkup	1. We comply with "Labor Health Protection Rules" by the implementation of health checkups and further medical review for employees. We provide better health checkup benefits than are required by the relevant laws and regulations. 2. Annual physical examination for managers and above, and an additional physical examination for senior managers is conducted every two years. 3. A health report is provided with several checkup items, and descriptions and health education are also provided. 4. A health check follow-up procedure has been established that assists an employee with any abnormal findings to get further medical review and treatment. 5. If the health condition is unable to fit the original job, a recommendation is made to the unit manager to change the workplace or job after the doctor's evaluation.
Health counseling & assistance	1. Assist employees and their families to get treatment and registration service. 2. Provide individual counseling service, and advise workers to avoid taking up high-risk jobs. 3. Conduct occupational disease risk assessment for all employees at the Linyuan plant; no employee is diagnosed with occupational disease in 2019, and with the occupational disease rate (ODR) 0%, of 0 employee at high risk. (Note: Occupational disease rate = (total number of occupational diseases / total working hours) x 200,000). 4. Statistical study and classification of the annual health exam results is regularly carried out to track employees with an abnormality, or who are at high risk. The full-time plant physician will determine the risk factor and conduct individual counseling or health education, and provide necessary medical treatment.

Program	Content
Health education	1. In support of government policy, health units are regularly invited to the plant to give vaccination against influenza. 2. Health education can be arranged at any time if required. For example, in the event of an epidemic situation. 3. Invite external lecturers to speak about safety and health education at the plant. 4. Cooperate with local health units to conduct health courses and promotions, and to align with government's policies. 5. Safety is advocated on a daily basis by E-mail to all employees and suppliers. The topics of safety promotion in 2019 include: industrial safety, environmental protection, sanitation, fire protection and epidemic. 6. An alert announcement would be made when the air quality measured by the Environmental Protection Agency displays dangers to health to remind employees to wear mask outdoors and reduce outdoor activities.
Health promotion activities	Diversified health seminars were organized in 2019, and 100% of our employees participated, except for a few away on official business travel. Robust Liver & Colorful Life: Liver disease prevention, treatment and care Healthy & Happy: How to improve self immunity
Preventing exceptional work-related illness	1. Establish the procedures for prevention and management of exceptional work-related illness and occupational diseases 2. Based on health inspection reports, overload charts, and six months of overtime statistics, we perform a plant-wide employee risk identification assessment. As a result, no employee needs to counsel doctors in 2019.
EAP	1. Advocate safety on a daily basis and relevant information is sent to all employees for reference. 2. The plant nurse in the medical office is available for telephone consultation and provides diversified assistance to employees. 3. After consultation, an employee may be referred to the full-time physician in the plant for counseling, assistance or medical treatment. The family of the employee might also be contacted if necessary. 4. Annual recreational activities are organized for employees to encourage outdoor activity and help keep the physical and mental health of employees in balance.
Dietary and food safety	1. Inspections of the hygiene at food suppliers are carried out from time to time. Checks are made on such matters as the ingredients used, food hygiene, food quality and work place hygiene. 2. The food companies chosen comply with all legal requirements and have product liability insurance.
Program for the prevention of human-induced hazards	1. The "Program for the Prevention of Human-induced Hazards" was formulated. It was coupled with self-diagnosed symptoms during annual health checkups, employee medical records, sick leave, time lost records and other related documents. Workplaces and operations with a high rate of complaints were tracked and improvements and preventative measures were implemented. 2. Risk assessment and investigations are carried out on musculoskeletal hazards. Employees engaged in long-term repetitive operations can suffer from musculoskeletal problems. As injuries can be the result of incorrect posture during work, guidelines for body posture management were set. 3. Administrative changes, health promotion, general and advanced improvements are suggested according to the hazard level, and review and tracking of the effectiveness of improvements is done at each quarterly occupational safety meeting.
Preventing for occupational diseases	1. Conduct health management tracking for personnel who are particularly hazardous to health operations. 2. In 2019, three employees took Special Health Checkups, two were classified as Level 2 management cases. As per regulations, they were transferred to Level 1 tracking management after consultation with specialist physicians.

Prevention of Occupational Disease

OUCC has been concerned about the issue of employee overwork, OUCC Linyuan plant has established, implemented and promoted "Prevention of Disease Caused by Abnormal Workload Procedures", and taken safety and health preventive measures related to overwork prevention to ensure the physical and mental health of employees in the plant, to further reduce the employee's long-term work pressure and job fatigue accumulation due to shift rotation, night shift work and long working hours, which affect the physical capability and cause the risk of cardiovascular disease. In 2019, there was no occurrence of employee overwork.

- **Mechanism 1:** Employee attendance is managed by an electronic system.
- **Mechanism 2:** The Linyuan Plant "Occupational Safety & Health Committee" holds meetings every three months. The plant nurse reports health service-related matters with regard to the prevention of bad health conditions triggered by abnormal workload and all the health management, occupational disease prevention, health promotion and protection are reviewed at the meeting.
- **Mechanism 3:** Employees are required to complete a health checkup form. After a health check, and the health checkup form has been submitted, as well as an occupational health promotion questionnaire, and the 6-month overtime hours calculation. This is done to identify any high-risk employees, based on the Industrial Safety and Health Association format.
- **Mechanism 4:** Personal fatigue risk factors are assessed as well as working patterns and environmental risk factors. The monthly overtime hours of employees with abnormal workloads is taken into account and health management measures are taken according to the level of workload to safeguard employee health.

Materity Health Care at the Workplace

A "Healthy Maternity Protection Committee" has been established by Human Resources Department, the Department of Safety and Health, plant nurse, and director of the workplace maternity unit to study maternal health hazard control and work adaptability adjustment practices. Risk levels are classified and adjusted in accordance with health risk assessment to ensure the nature of the work is in line with a proper level of care for the health of female employees.

Most of the OUCC employees are male adults, and their children are not within the age group that require parental leave. However, 2 female employee applied for parental leave in 2019. We continue to dedicate efforts to improve maternal health protection measures, and this includes the assessment of hazard, health risk and control, interviews with a physician, risk classification management, adaptive work allocation and so on. This is done primarily for those female employees who might be exposed to hazardous working conditions. 1 female employees benefitted from this provision in 2019.

Organization	"Healthy Maternity Protection Committee"
Goal	This provides physical and mental health care during pregnancy, childbirth, or nursing period.
Plan	"Maternal Employee Health Plan"
Measure	● Risk assessment, management and classification of the health of maternal employees is done regularly. ● Assessment of the health and the work adaptability of an employee within a year after pregnancy and childbirth. ● A nursing room has been set up. ● Control strategies and plans have been prepared. ● A full-time physician and nurse are stationed on the premises who provide employees with interviews, health counseling and health assessment. ● Adaptive work allocation has been established. ● Emergency response measures have been implemented. ● Improvements have been made to the working environment. ● Tracking and management is done regularly.

Occupational Safety and Health Management System

OUCC follows the safety and health implementation project, establishes a people-oriented safety culture, and hopes to implement comprehensive safety management and control.

Item	Regulaitons
Regulatory identification	"Management Guidelines for Obtaining and Identifying Occupational Safety and Health Regulations"
Standardized management procedures	"Document and Data Controlled Management"
Safety and health education and training	"Education and Training" "Environmental Safety Certification Requirements for All Levels"
Hazard identification	"Occupational Safety and Health Hazard Identification and Risks and Opportunities Assessment Guidelines"
Change management	"Management Guidelines for Changes to Production Processes" "Management Guidelines for Organization and Personnel Change"
Chemical management	"Implementation of Labeling and Education Mechanism for Hazardous Chemicals"
Contractor management	"Communication and Evaluation of Environmental Safety and Health Management of Third Party Suppliers" "External Suppliers Management Guidelines" "Policies for Work Safety and Health of Contractors"
Implementation check	"Safety Audit Branch Operational Guidelines" "Guidelines for 5S Patrol Inspections by Senior Managers" "Safety Observations" "Internal Audit"
Emergency response	"Emergency Response Personnel and Duties" "Diversion and Response Plans for Typhoons and Heavy Rain" "Emergency Response Guidelines for Earthquakes" "Personnel Emergency Evacuation" "Guidelines for Crisis Management"
Occupational disaster prevention	"Guidelines for Incident Investigations" "Command Authority for Emergency Shut Down "Maternal Employee Health Plan" "Prevention of abnormal work load leading to the onset of illness" "Program for the Prevention of Human-induced Hazards" "Guidelines for Body Posture Management"

Safety, Health and Environmental (SHE) Policy

- **Commit to SHE and Comply with Laws and Regulations:** ensure commitment in conformity with laws and regulations, or other requirements in regard to SHE.
- **Commit to Continuous Improvement of the SHE Management System:** establish the SHE performance evaluation index for the company, and to continue enhancing the SHE management performance through monitoring, review and improvement.
- **Implement Full Participation and Continuous Improvement:** attend to the SHE requirements and improve SHE performance through the consultation and participation mechanism for the workers or their representatives, and by means of regular monitoring, review and management.
- **Eliminate Hazards to Reduce SHE Risks:** implement hazard identification and risk assessment, strengthen sources management, and eliminate hazards to reduce risks by means of engineering control or management measures.
- **Conform to Environmental Protection and Implement Pollution Prevention:** ensure commitment to continuous improvement in pollution prevention, and create a higher quality and environmentally-friendly work environment.
- **Provide Safe Environment and Healthy Workplace:** establish an intrinsically safe work environment, and develop friendly and healthy workplace as a cultivation of SHE.
- **Disclose to Stakeholders:** value bilateral communications, and divulge proactively the company's SHE policy and related information to employees, contractors, customers, suppliers, and other stakeholders to impel benign changes of SHE.

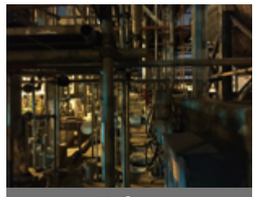
Operational Environmental Tests

We are actively promoting improvement in the effectiveness of the pollution prevention system and control. The installed underground monitoring wells, flammable gas monitoring stations, recycling of carbon dioxide, waste gas incinerators and the capped wastewater plants are in place to reduce the impact to the environment.

To improve occupational and plant safety, prevent accidents caused by night shift work of both employees and contractors, and solve problems for lack of light during machine operations, we recommend the use of a Light Lux meter to check areas where light seems to be insufficient for night shift work. On-site inspections were conducted and new lighting plans are set up for each area. This involved 43 LED lighting installations to improve lighting at the areas. To continuingly improve the lighting environment of the plant, we plan to measure the illumination level of the plant every six months in accordance with the engineering design standards.

OUCC Linyuan Plant

Insufficient lighting on public and on-site operating areas

EG First set of cooling water tower meter reading office	EA P2-106A/B inlet pipe	EOD 1st phase storage zone/road	EC HPEC 4F South
			
Before	Before	Before	Before
			
After	After	After	After

In response to neighboring plants emitting foul odor, which enters OUCC premises through air-conditioning systems and cause discomfort to the located staff, the internal and external circulation switches have been installed in the air-conditioning systems of each control room to prevent outside odor from affecting the health, mood of the staff. CO_2 concentration meters have also been installed to monitor air quality.

2019 Operational Environment Test Results

Item	Content	Frequency	Inspection results
Purity Inspection of the drinking water dispensers	Detection of drinking water quality	Quarterly	
Personal hearing tests	Measurement of accumulated personal noise exposure	Biannually	
Reproductive toxic chemical detection	Detection of the concentration of ethylene oxide and carbon disulfide	Biannually	
Chemical detection	Detection and measurement of the concentration of chemicals such as methanol, ethylene glycol butyl ether, n-butanol and sulfuric acid in the working environment	Biannually	
Central AC indoor CO_2 concentration detection	Indoor CO_2 concentration detection	Biannually	
Underground monitoring wells	Soil samples were collected for inspection at 18 groundwater monitoring wells	Annually	
Factory lighting fixtures	Calibration of the Light Lux Meter	Biannually	

Manufacturing Process of Zero Damage

The OUCC has carried out manufacturing process hazard and operability (HazOp) analysis on the more hazardous processes associated with higher risk. A hazard prevention model and the risk management process have been constructed to reduce the probability of industrial accidents.

The OUCC has also introduced Layers of Protection Analysis (LOPA) technique in the newly established EOD plant in 2010. High-impact events from the HazOp analysis of the EOD plant were selected for LOPA analysis. The security protection layer was strengthened to achieve the expected effect of risk management. LOPA analysis of the existing processes were all completed.

Risk Hazard Analysis

The process risk is a key issue to the safe environment. Thus, we conduct preliminary hazard analysis on the process change of the output pump model, capacity, and pipelines of the new propylene oxide storage zone to identify the safety risks of the work field, provide process safety assessment for high risk equipment, and request for improvement within a specific period of time.

Production Process Disaster Prevention Measures

	Production Process Isolation	Safety Configuration
Operational procedures of tank system abnormalities	● Emergent activation of the ESD system. ● Shut-off valve.	● Combustible gas detectors are installed on site. ● Personnel are distributed with canister gas mask and goggles. ● Storage tanks and unloading stations are equipped with emergency foam, sprinkler system (with fire hydrant and water cannon for firefighting). ● Equipped with DCS production process with chain logic system. ● Press button for emergency stop is equipped both on-site and in the control room. ● Personnel are equipped with class-A protective outfit when implementing the relevant isolation operations upon leak. ● Emergency response of propylene oxide truck leaking upon unloading. ● Set up FM-200 automatic fire extinguishing system in 14 MCCs.
Emergency response of truck leaking upon unloading	● Propylene oxide tank outlet pipeline is equipped with flow control valve to activate the shut-off when overflowed. To prevent large amount of leakage caused by a broken pipeline, a remote control switch is also equipped to activate an emergent shut-off. ● Propylene oxide storage tanks and unloading stations are equipped with sprinkler system as a fire protection.	

Emergency Response of Propylene Oxide Unloading Truck Leaking


Shut-off Valve


Combustible Gas Detectors

Fire Alarm


Emergency Foam and Sprinkler System


Sprinkler System at Unloading Stations


Foam Tank

Safety Prevention Mechanism

Occupational Safety and Health Management Mechanism Standard Operating Procedures (SOP)

- The environmental health and safety policy as set down in the "Environmental and Occupational Health and Safety Management Handbook" has been revised as a response to decisions by senior executives, request of the Far Eastern Group, and the anticipation of the environmental safety and health from stakeholders.
- "Occupational health and safety risks and opportunities management guidelines" effectively identify the risks, and opportunities, of the occupational health and safety management system. We continue to make improvements to the occupational safety and health management system to enhance performance.
- The "Safety Manual for Work in Confined Spaces" lists safety management for all work operations in confined spaces to ensure personnel safety.
- "Environmental safety certification requirements for all levels" have to be followed by the supervisors of all units and apply to all levels of staff that need certification.
- "Safety management of high-pressure water column (water blade) operations" requires that all the necessary tasks be taken in strict compliance with regulations to ensure and maintain the safety of personnel at all times.

Safety data sheet and hazard labeling of chemical substances

- All raw materials and products used in the plant have associated material Safety Data Sheets (SDS) which are kept on-site and in the offices of each unit. They are also accessible on the Internet platform for employees' checking at all time. This ensures that all the proper actions to be adopted to secure the safe handling of the material and the safety of personnel and the plant.

Sobriety testing before entry

Article 20 of the "Work Rules" was amended to stipulate a sobriety test for employees entering the plant: Employees and contractors entering the Plant are all subject to a sobriety test. Employees or contractors who fail the sobriety test are denied entry. An employee who violates the rules will be dealt with according to the Work Rules. Contractors in violation will be penalized under the Contractor Operation Safety Commitment.

- A measured alcohol level of 0.01 to 0.14 mg will result in entry refusal. A verbal warning will be given to first-time offenders. The offender must provide a declaration stating specific improvement and be targeted as a follow-up. The day's absence will be treated as an off day. A second offence will result in a minor demerit and the day's absence will be treated as an off day. A third-time offense will result in a major demerit and the day's absence will be marked as an absence from work.
- A measured alcohol level of 0.15 mg or more will result in entry denial and a major demerit. The day's absence will be marked as absence from work.
- Individuals failing the sobriety tests for an accumulation of three major demerits will be handled according to Article 33 (termination of contract).

Routine Safety and Health Education Training

- Course theme: Safety, Health and Environmental Protection.
- Course content: This included the prevention of common disasters in petrochemical plants, the six major food groups, healthy dynamic living - aerobic exercise, introduction to common hearing disorders, control and management of hazardous air pollutants from petrochemical processes, PM 2.5 air pollution and employee health.
- Employee feedback: Employees may express opinions and ask questions during courses for effective interchange with their lecturers.

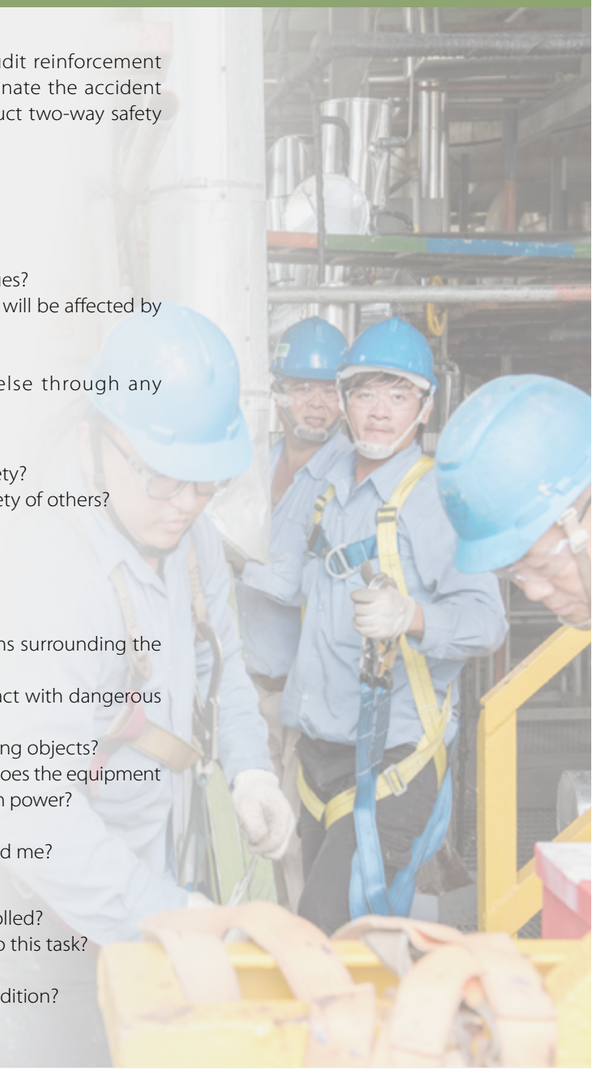
2019 Safety and Health Education and Training Results

Education and Training Project	Frequency	Hour	The number of participants	Investing amount
Fire Safety Environmental Protection Safety and Health	4	7	320	30,000

Noise Prevention Measure

1. Notices of applying ear protection are displayed at all the entrances to the plant with noise pollutant.
2. Personal hearing tests are carried out every six months.
3. Plant personnel must wear earplugs or earmuffs before entering noise polluted spaces.
4. Every employee is arranged for an annual precision hearing test. No employees experienced hearing disorders in 2019.
5. A full-time physician and a nurse are stationed in the plant to provide employees with health checkups and healthcare.

TAKE 5 Safety Training



Purpose: TAKE 5 is a safety check and audit reinforcement tool, take the initiative to effectively eliminate the accident factors through the five actions, and conduct two-way safety communications in all levels.

Steps:

T Talk: (Stop, Step Back, Observe)
- Do I understand my task?
- The role between myself and my colleagues?
- Have I communicated with all those who will be affected by my task?
- Will my task affect other people?
- Have I communicated with anyone else through any method that makes the task safer?

A Action: (Walk around)
- What is the effect of my action on my safety?
- What is the effect of my action on the safety of others?
- Do I know the steps / procedures?
- Have I applied for the permit?
- Have I read the contents of the permit?

K Knowledge: (Identify any Hazards)
- Do I know if there are any hazardous items surrounding the working environment?
- Possible slip, trip or fall? Will it be in contact with dangerous substances?
- Is there any possible dropping or protruding objects?
- Is there pressure in the equipment/pipe? Does the equipment need to be isolated and disconnected from power?
- Is the surface hot? Will I be burned?
- Will my task affect other operations around me?

E Equipment: (Control, Safety Protection)
- Has the danger been eliminated or controlled?
- Do I have the proper protective gear to do this task?
- Do I have the right tools to do this task?
- Are the tools and equipment in good condition?

Non-disaster Working Hours

To enhance the safety awareness of all our workers and contractors, and to achieve the goal of accident-free working hours:

- 5S patrol inspections are implemented by supervising personnel every week.
- Every month, the safety branch will conduct an audit of safety. Tracking audits and the control list will be the basis for improvements.
- Combine occupational health and safety (OH&S) with personnel key performance indicator (KPI) as a criteria for the determination of employees' performance bonuses, which means bad performance results in bonus deducton.
- We encourage all personnel to report false alarm incidents.
- The Plant supervisor holds a safety meeting with contractors on Thursday fortnightly to communicate, promote, share experiences, and coordinate all necessary safety and health issues.
- An "OUCC Safety and Health Group" has been set up through LINE and the Plant supervisors and contractor's industrial safety personnel are obliged to join, provide feedback and share in all communications.
- From 2013.03 till 2019.11, accumulated safety manhours at OUCC totaled 4,416,554 hours. In 2019 alone, safety manhours of contractors amounted to 272,644 hours, total contractors numbered 143.

OUCC aims to achieve 5 million safety man-hours, and contractors of 990,000 safety man-hours in the mid- and long-term stages.

Work Safety Risk Management

Discuss and formulate the safety improvement mechanism to effectively reduce work safety risk at regular meetings for Occupational Safety and Health Committee, and Contractor Coordination. In 2019, we reviewed, improved and ensured the safety of employees in the plant in response to safety and health matters that has been raised by employees through the "In-plant safety meeting", the improvements made were as follows:

Purpose	Improvement Items and Procedure	Result
Electromagnetic radiation in the monitor and control rooms could conceivably affect health	Testing done by the electronic engineers has shown that radiation levels are very low. In any case, regular tests are now conducted in June and December each year.	chieved
Protection against bites by poisonous snakes	1. Fences have been installed around Linyuan plant, with additional 60 cm high mesh net set at the bottom. 2. SOP has also been established for the identification of snake species and emergency treatment and notification.	
Indoor air quality control has been improved in terms of the complaints of foul odor emitted by neighboring plants.	1. Internal / external circulation switches have been installed to the air-conditioning systems of each control room to prevent outside odors from affecting the health and working mood of the staff. 2. CO_2 concentration meters have also been installed to monitor air quality.	
To reduce the risk of chemical hazards resulting from a number of n-butane tankers waiting to unload in the plant area at the same time.	The operation management office requires that the transportation companies for n-butane stagger the arrival times. The security guard at the gate will grant no entry of other tankers into the plant area, when the loading station is engaged.	
Additional lighting to avoid incident of night shift operation due to insufficient lighting.	1. Key improvement would be focused on the areas where the insufficient lighting were reported. 2. The Electronic Engineering Team conducted on-site surveys and illumination measurement to the reported area to determine where additional lighting would be needed.	

Linyuan Plant Occupational Accident Statistics

LDR	Gender	Unit	2017	2018	2019
Working day missed		Day	0	0	0
Total working hour		Hour	41,664	43,424	48,312
LDR		%	0	0	0
Working day missed		Day	0	0	0
Total working hour		Hour	609,088	610,088	604,096
LDR		%	0	0	0

AR	Gender	Unit	2017	2018	2019
Working day absent		Day	5,208	5,428	6,039
Total working hour		Hour	109.2	65.62	45.125
AR		%	2.1	1.2	0.75
Working day absent		Day	76,136	76,261	75,512
Total working hour		Hour	487.8	315.25	122.875
AR		%	0.6	0.4	0.16

Note: 1. The Taipei Head office is an administrative office, so the disaster statistics are mainly based on the Linyuan plant.
2. The disaster statistics cover the employees of the Linyuan plant but exclude contractors.
3. In 2019, there were no work accidents related to buildings, equipment, raw materials, materials, chemicals, gas, vapors and dust in the workplace, or matters such as occupational diseases, injury, disability or death due to business operations, or any other occupational reason. Injury Rate (IR) = (Total number of injuries / Total working hours) x 200,000
4. Lost Day Rate (LDR) = (Total loss of working days / Total working hours) x 200,000
5. Absentee Rate (AR) (Including personal and sick leave) = (Total number of absent days / Total number of man-days) x 100%

Environmental Safety and Health Risk Assessment and Improvement Results

The evaluation mechanism: The PDCA cycle has been adopted from the concept of corporate sustainable management, for the identification of risk types and management measures based on routine and non-routine activities, behavioral factors, equipment, materials and external hazards outside the workplace through hazard identification and assessment. The business operations in the management system are continuously optimized and implemented through performance and compliance assessments as well as internal audits, to enhance workplace safety and health performance.

The management mechanism: Risks are verified before adding new equipment or new chemical substances. If the risk score is higher than 45, control measures are based on priority, including elimination, replacement, engineering controls, signs / warnings / management and control, and the use of personal protective gear, are all considered for its reduction.

Improvement Case:

Preliminary Hazard	Score before Improvement	Safety Improvement Mechanism	Score after Improvement
EOD operator slipped accidentally during feeding operation	54	● Modify the reactor operating platform space ● Add anti-falling measures around the walking space	2

A staff member slipped and fell from a high level working platform

Painted yellow warning lines on the sides of the platform

Add a cushion protector to the hand valve screw and turn the cooling water control valve to 180 degrees

Zero Accidents in Transportation

Chemical transport can be divided into inland transport and marine transport. Inland transport can be further divided into pipeline transport, railroad transport, and road transport. As densely populated as Taiwan and with no roads especially designated for chemicals transport, most chemicals are transported on public roads resulting in close interaction with the public. Therefore, road accidents involving vehicles transporting chemicals may often present an immediate threat to the lives and property of people in proximity and also cause substantial loss to an enterprise and the society. There were no serious chemical leakages in 2019.

Transportation Risk Assessment

All OUCC products are transported by the tankers outsourced from external suppliers; therefore, the transport contractor management is of particular importance. Due to the main risk of chemical transport from traffic accident may cause the tanker to overturn, and result in the effusion of chemicals. We conduct necessary transportation risk assessment.

The chemical hazard categories include explosive, corrosive, flammable, oxidizing and toxic, which not only endanger the life and property safety of transport personnel, road users, rescue workers and nearby residents, but also undermine the natural ecological environment, the social costs resulted in is huge. The direct cause triggering the hazardous substance leakage can be divided into four factors: human error, vehicle failure, storage equipment, road and environment.

Risk factor	Possible incidents
Human error	1. The inlet valve is not closed properly after a tank has been filled. 2. The tanker driver fails to fully comply with traffic rules, for example: speeding, drunk driving, running red lights, keeping no safe driving distance, etc. 3. Other road users fail to follow traffic rules and collide with the chemical tanker, or cause the tanker driver to veer and lose control.
Vehicle failure	1. Vehicle mechanical failure: brakes, steering tire blowouts or punctures. 2. Transport tank not correctly coupled with the vehicle or the coupling device has been damaged.
Storage facilities	1. The tank has been used for too long and may be corroded or defective in other ways. 2. The chemical load is incompatible with the tank material. 3. The internal pressure is way beyond the tank tolerance. 4. Leaking valves or leaks from pipeline accessories or other parts.
Road and environment	1. Poor geometric road design: too sharp curves, steep hills, obstructed view of the road, etc. 2. Unclear and insufficient traffic direction and warning signs. 3. Poor road conditions and obstructions.

Freight Forwarders Management System

We develop strict management standards to ensure that forwarders jointly fulfill their security commitments since all the tanker transportation in OUCC is outsourced. Apart from compliance with the minimum requirements of the laws and regulations in the country, we also ask our freight forwarders to include the "Risk Factors" in the emergency response mechanism, and continue to improve the safety management system based on the past disaster reviews or potential risk analysis.

OUCC also makes use of case-collected information to improve the depth of crisis response for the supplier transportation personnel and to create a win-win situation for contractor and the company through the promotion of regular education and training for the drivers and dispatchers.

Process	Control Mechanism
Operational Regulations	1. **Contract specifications:** Supplier conduct is regulated by comprehensive clauses in the transport contracts. Forwarders are requested to comply with the signed admission management document that is included in the contract annexure: A. Contractor's Operation Safety Commitment to OUCC while Working in the Plant B. Tanker driver compliance matters C. Tanker operational safety management handbook 2. **Tanker loading & transport:** The hazardous products road transport prospectus and material safety data sheets must be submitted to the local motor vehicle supervision office for the issue of a temporary permit that must be on board with the driver before loading and shipping. The driver must drive on the scheduled transportation routes at the stipulated times. 3. **Vehicle hardware requirements:** Use of retreaded tires is strictly prohibited for the entire tanker (including front, back or onboard trolley). Each tanker should have at least two functional (speed and image) event data recorders as well as GPS so the tanker can be located from any computer using a browser. 4. **Driver requirements:** OUCC requires that all tanker drivers must have dangerous goods transport license and driver's license, and the gas tanker driver is required to have two additional licenses for "high-pressure gas operating license" and "high-pressure container operating license". The driver must also have an annual physical checkup document and any driver with heart disease or hypertension is prohibited from driving chemical tankers.
Transportation Regulations	1. **Control mechanism: I**mplementation of personnel control, as well as vehicle and cargo permits, together with tanker weighing and driver ID, strictly controls the admission of drivers, vehicles and their cargo. 2. **Safety Control and Management:** The delivery route taken by tankers transporting hazardous materials is regulated in accordance with Article 84 of the Rules for Road Traffic Safety. All forwarders have been officially informed by OUCC that the "Rules Governing Safety and Health for Hazardous Goods Delivery" and "Transportation Violation Penalty Standards" are part of the contract and strict compliance is required. 3. **Safety checkup:** Each transport vehicle entering or leaving the factory is required to have a visual check. All drivers are requested to make regular voluntary inspection and regular reviews are carried out by OUCC staff. The loaded vehicles are all checked the same way. 4. **Transit checkup:** Each transport route must be confirmed by the motor vehicle supervision office. The driver must drive on the scheduled route set down in the temporary road permit and the journey will be confirmed by GPS recording.
Transportation Meeting	1. **Regular Meetings:** To ensure the effective management of transportation safety and to discuss safety issues with transportation providers, OUCC held meetings with different transportation providers on a regular basis. 2. **Meeting Results:** In 2019, OUCC convened two meetings with tanker transportation companies, two with gas transportation companies and two with general container and truck transportation companies. The matters discussed included: transportation distributions, follow-up and the review of nonconformity, transportation mode coordination, controversial issues, policies and safety information propagation and vendor issues response. 3. **Goal:** To improve road safety management, OUCC convened regular transportation meetings. The company also advocated that all the transportation contractors should acquire RSQAS certification, as well as to fortify contractors' spontaneous willingness to acquire one.

Operation	Mechanism
Emergency Response	1. **Emergency response mechanism:** Each transport company is required to provide an Emergency Response Prospectus. 2. **Emergency drill:** Emergency drills are carried out by at least two transport companies of different types at the same time. This is done as a joint exercise with the fire brigade to ensure that the companies have adequate planning and proper joint protection for emergencies.
Education and Training	**Drivers and dispatchers should receive refreshed training every year to improve their depth of crisis response.**

Item	H1/2019	H2/2019
Training topic	Transportation personnel carrier education and training	Transportation personnel carrier education and training
Number of participants	6	27
Number of manufacturers	3	3
Participation Rate (%)	100%	100%

Diversified Auditing	1. **Onsite audit:** the transport company is subject to an onsite audit every year that is part of the vendor audit. To ensure that the transport companies attach enough importance to the quality of transportation, OUCC formulated a new regulation in 2018: "The results of the onsite audit shall be the basis for the distribution of freight charges and volume ratio for the following year." 2. **Road audits** are classified as occasional inspections or as GPS satellite positioning. For occasional inspections, vehicles can be followed to record the driver's behavior on the road, driving speed, and unloading operations. GPS satellite positioning audits are used to determine the vehicles position and to check if the driving speed and the idle time on the road, as well as the choice of route or zone, have been normal.

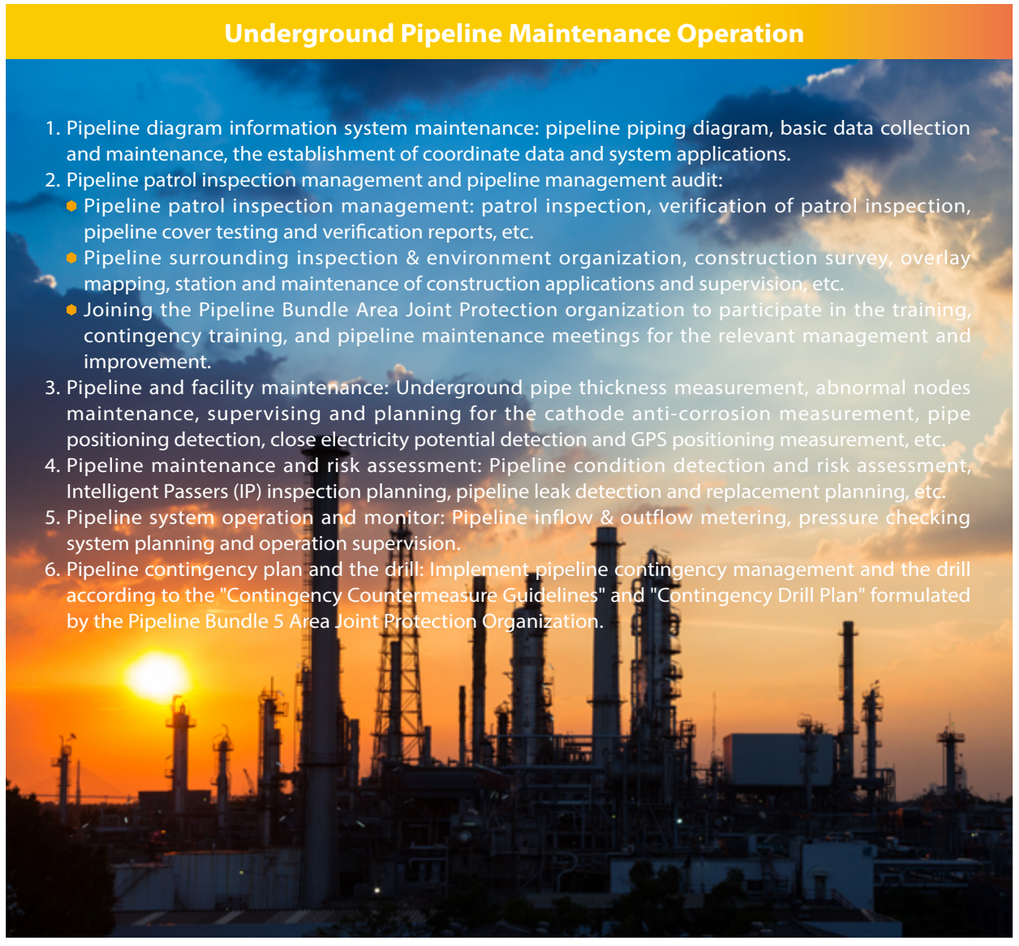
Tanker Transportation Safety Management Mechanism

1. The headlights of all tankers on the move must be on at all times.
2. Transportation companies are required to comply with government laws and regulations, including the "Labor Standards Act", "Occupational Safety and Health Act", "Road and Traffic Safety Regulations", "Regulations of Hazard Communication on Dangerous and Harmful Materials" and all other relevant laws.

Field Pipeline Maintenance Operation and Management

OUCC formed the "Pipeline Maintenance Operation Team" to actively manage the pipeline-related business, including the establishment and management of pipeline diagrams, monitoring the current status of pipeline operations, conducting pipeline surveys, contingency drills, joint defense organization maintenance, and reviewing the management of pipelines outside the plant to comprehensively control the inspection, testing, and maintenance status, so as to reduce the risks of the pipelines outside the plant.

Underground Pipeline Maintenance Operation



1. Pipeline diagram information system maintenance: pipeline piping diagram, basic data collection and maintenance, the establishment of coordinate data and system applications.
2. Pipeline patrol inspection management and pipeline management audit:
   - Pipeline patrol inspection management: patrol inspection, verification of patrol inspection, pipeline cover testing and verification reports, etc.
   - Pipeline surrounding inspection & environment organization, construction survey, overlay mapping, station and maintenance of construction applications and supervision, etc.
   - Joining the Pipeline Bundle Area Joint Protection organization to participate in the training, contingency training, and pipeline maintenance meetings for the relevant management and improvement.
3. Pipeline and facility maintenance: Underground pipe thickness measurement, abnormal nodes maintenance, supervising and planning for the cathode anti-corrosion measurement, pipe positioning detection, close electricity potential detection and GPS positioning measurement, etc.
4. Pipeline maintenance and risk assessment: Pipeline condition detection and risk assessment, Intelligent Passers (IP) inspection planning, pipeline leak detection and replacement planning, etc.
5. Pipeline system operation and monitor: Pipeline inflow & outflow metering, pressure checking system planning and operation supervision.
6. Pipeline contingency plan and the drill: Implement pipeline contingency management and the drill according to the "Contingency Countermeasure Guidelines" and "Contingency Drill Plan" formulated by the Pipeline Bundle 5 Area Joint Protection Organization.

Emergency Response Mechanism

To strengthen emergency response, for risks associated with processing, operations and transportation, which might occur at any time, the company regards product type and departmental accountability to proceed with comprehensive simulation and preparation for the probable accidents. A contingency plan is formulated, and practical exercises, education and training are arranged to help on-site staff quickly appreciate the situation at an accident scene and react effectively, so as to minimize the damage of the accident and its effect on people and the environment.

Emergency Response Plan

The OUCC has prepared the "Contingency Plans" for the prevention of occupational accidents and the protection of employees against fire, leaks, typhoons, floods, earthquakes, war, transportation accidents, and to deal with notifications, evacuations, rehabilitation, and so on. Regular drills and contingency measures are organized to cope with disasters that might occur, and to take immediate action in the event of an accident in an organized and systematic way to minimize damage and loss. In the event of a disaster or an emergency, the internal and external reporting procedure is immediately activated in accordance with the "OUCC Emergency Response Reporting Process." In addition, the following comprehensive emergency response protocols are used to ensure that all employees will respond in the same coordinated way in the event of an accident:

1. The OUCC field pipeline leak emergency response principles
2. The EG Plant raw materials field pipeline transportation procedures and nonconformity process
3. The OUCC Linyuan Plant "Rules Governing Oxygen and Nitrogen Gas Transmission Pipeline Nonconformity"
4. Nitrogen gas pipeline leak emergency response plan

Emergency Response Training

Potential manufacturing process and transportation accidents at OUCC are likely to involve chemical spills, fire, tanker accidents, and explosion. An emergency response team was established to reduce the incidence and consequences of accidental chemical leaks. The task force arranged the groups according to the nature of the emergency response needed. We are confident that the members selected have sufficient knowledge and experience to effectively reduce the impact of an emergency and to control the escalation of any such incident.

OUCC carried out 361 hours of off-site "Emergency Response Team" training covering general emergency response exercises, fire-fighting equipment operation, and mobilization of the emergency response teams by external experts. Staff from the Linyuan fire brigade are invited to instruct our personnel in the operation of the plant fire-fighting equipment for a total number of 315 participants in 2019. In addition, a two-stage process, 4 emergency response training courses, were held for all staff in the Linyuan Plant in the first and second half of 2019, for a total of 320 participants.

To ensure a convergent result for each emergency response, all emergency response plans including compound disaster were consolidated into one in the event of fire or leakage, and standardized with operation procedures (SOP). We have also introduced simple and effective guidelines to ensure emergency response team members are fully aware of their particular role so they can make a correct and prompt response based on the nature of any incident in accordance with such SOP.

Compound Disaster Prevention and Emergency Response Plan

Potential Disaster	Emergency Response Plan
Leak, fire	Emergency response team members and missions
Transportation incident	Transportation incident emergency response operation
Typhoon and storm	Typhoon and storm graded emergency response plan
Earthquake	Earthquake emergency response procedure

Emergency Response Mechanism for Liquid Leaks

1. A transportation accident shall be reported immediately, depending on the situation and severity, in accordance with the "OUCC Emergency Response Report Flowchart."
2. The Chief Plant Manager will use the reporting system to dispatch personnel to the site. The Environmental Safety (environmental protection related follow-up), Production (chemical-related follow-up), and Logistic (transport company vehicle scheduling and replacement related follow-up), shall all be informed and assistance may also be requested from the Maintenance staff if necessary.
3. The SHE Department shall contact the local fire brigade (119), environmental agencies, transportation agencies, the Executive Yuan EPD Southern Taiwan environmental toxic disaster response team, ERIC national toxic disaster counseling center, or other toxic chemical disaster prevention center, and chemical disaster relief organization support units to request support and assistance.
4. The Logistic Team shall dispatch one emergency vehicle equipped with emergency response equipment with all the necessary personnel to the accident scene.
5. Site commander: Local relief personnel assigned to the accident scene shall act as the site commander and coordinate operations with the environmental safety personnel to manage disaster relief. To secure the safety of personnel, unauthorized persons should be removed from the accident scene.
6. Warning signs should be set up around the scene of the accident to prevent secondary damage, the area should be cordoned off and access should be denied to unauthorized persons.
7. An announcement should be made by the spokesperson of the Linyuan Plant.
8. Request the transport company to arrange trucks and cranes for backup and to recover the damaged or undamaged goods or shift the tank and return it to Linyuan Plant with extra care, for further processing.
9. Contact a waste disposal company that is equipped with vacuum slurry tankers as needed (such as acids, alkalis, etc.) to help recover and transport the chemicals either in or spilled out of the tanker, clean the container, and drain the liquid from gutters and return it to the Linyuan Plant for further processing.
10. Decontaminate the ground and clean and wash the gutters until test samples are approved by the local Environmental Protection Bureau.
11. Take photos of the chemical barrels, vacuum slurry tankers, and contaminated soil and oil absorbent sheets removed from the accident site and returned to the Linyuan Plant for the records and future reference.
12. Accident review: The Logistic Team shall complete an accident report and hold a meeting with the relevant units and transport companies to discuss prevention of the recurrence of similar incidents.
13. The liquid recycled in the vacuum tankers should be discharged at the location designated by the production and the environmental protection units. The discharge pipe shall be covered by a filter to block debris. The production unit must deliver the recovered liquid to the wastewater plant spare pool at the manufacturing unit after an analysis of chemical concentration and COD value.
14. The contaminated soil and oil absorbent sheets recovered must be handled by waste disposal vendors qualified by the Environmental Safety unit.

Tanker Leak Emergency Response Drill

Simulation scenarios

In an emergency drill simulation, a tanker from the "Fu-Da" Company is transporting a hazardous chemical, liquid ammonia. The tanker, which is heading East on a main road, has a collision with a truck which is changing lanes. The accident results in leakage from the side of the tanker which also has a severely damaged chassis. The driver notifies his supervisor and the "Emergency Response Team" is mobilized in accordance with regulations for emergency rescue.

Exercises

1. All drivers and the response team must be familiar with the disaster reporting procedure and all the response activation processes.
2. Comprehensive drills will ensure that all emergency response unit members are familiarized with their own role and tasks in an emergency.
3. They must be familiar with, and have the ability to identify and respond to all such unexpected incidents including the dangerous fires which may result from such transportation accident.
4. Joint drills and the support of other associates will help to reduce the chance of such disasters and ensure the protection of employees, the public, and the environment.




EO Reactor Leakage Emergency Fire Response Drill

Simulation scenarios

In an emergency drill, a fire is simulated at the bottom lid of Reactor D in the EOG plant. Initial efforts in extinguishing the fire are unsuccessful. The nearby fire notification system (fire alarm 5-1-6) and the sprinkler ventilation systems PRV-22 (sprinkler for Reactor D) and PRV-13 (sprinkler for Reactor C) are activated. Contact is made with the Central Control Room to call for assistance using the on-site telephone. Upon notification from the Central Control Room, the "Emergency Response Team" is mobilized in accordance with regulations for emergency rescue.

Exercises

1. Ensure that all Plant personnel are familiar with the disaster reporting procedure and the response activation process.
2. Comprehensive drills will ensure that all emergency response unit members are familiarized with their own role and tasks in an emergency.
3. Familiarize all employees with the emergency fire procedures so they have the ability to identify and respond to such an event in the plant.
4. Use emergency response drills to reduce the danger of fire to protect employees, the public and the environment.




Assurance Statement

SGS

ASSURANCE STATEMENT

SGS TAIWAN LTD.'S REPORT ON SUSTAINABILITY ACTIVITIES IN THE ORIENTAL UNION CHEMICAL CORPORATION'S CORPORATE SOCIAL RESPONSIBILITY REPORT FOR 2019

NATURE AND SCOPE OF THE ASSURANCE/VERIFICATION

SGS Taiwan Ltd. (hereinafter referred to as SGS) was commissioned by Oriental Union Chemical Corporation (hereinafter referred to as OUCC) to conduct an independent assurance of the Corporate Social Responsibility Report for 2019 (hereinafter referred to as CSR Report). The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the sampled text, and data in accompanying tables, contained in the report presented during on-site verification (22/04/2020-22/05/2020). SGS reserves the right to update the assurance statement from time to time depending on the level of report content discrepancy of the published version from the agreed standards requirements

The information in the OUCC's CSR Report of 2019 and its presentation are the responsibility of the management of OUCC. SGS has not been involved in the preparation of any of the material included in OUCC's CSR Report of 2019.

Our responsibility is to express an opinion on the report content within the scope of verification with the intention to inform all OUCC's stakeholders.

The SGS protocols are based upon internationally recognized guidance, including the Principles contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) 101: Foundation 2016 for accuracy and reliability and the guidance on levels of assurance contained within the AA1000 series of standards and guidance for Assurance Providers.

This report has been assured using our protocols for:

- AA1000 Assurance Standard (2008) Type 1 evaluation of the report content and supporting management systems against the AA1000 Accountability Principles (2008) at a moderate level of scrutiny; and
- evaluation of the report against the requirements of Global Reporting Initiative Sustainability Reporting Standards (100, 200, 300 and 400 series) claimed in the GRI content index as material and in accordance with.

The assurance comprised a combination of pre-assurance research, interviews with relevant employees, superintendents, CSR committee members and the senior management in Taiwan; documentation and record review and validation with external bodies and/or stakeholders where relevant.
Financial data drawn directly from independently audited financial accounts, Total Impact Measurement and Management, and Task Force Climate-related Financial Disclosures has not been checked back to source as part of this assurance process.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from OUCC, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with ISO 26000, ISO 20121, ISO 50001, SA8000, RBA, QMS, EMS, SMS, GPMS, CFP, WFP, GHG Verification and GHG Validation Lead Auditors and experience on the SRA Assurance service provisions.

VERIFICATION/ ASSURANCE OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the information and data contained within OUCC's CSR Report of 2019 verified is accurate, reliable and provides a fair and balanced representation of OUCC sustainability activities in 01/01/2019 to 12/31/2019.

The assurance team is of the opinion that the Report can be used by the Reporting Organisation's Stakeholders. We believe that the organisation has chosen an appropriate level of assurance for this stage in their reporting. In our opinion, the contents of the report meet the requirements of GRI Standards in accordance with Core Option and AA1000 Assurance Standard (2008) Type 1, Moderate level assurance.

AA1000 ACCOUNTABILITY PRINCIPLES (2008) CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

Inclusivity

OUCC has demonstrated a good commitment to stakeholder inclusivity and stakeholder engagement. A variety of engagement efforts such as survey and communication to employees, customers, investors, suppliers, CSR experts, and other stakeholders are implemented to underpin the organization's understanding of stakeholder concerns. For future reporting, OUCC may proactively consider having more direct two-ways involvement of stakeholders during future engagement.

Materiality

OUCC has established effective processes for determining issues that are material to the business. Formal review has identified stakeholders and those issues that are material to each group and the report addresses these at an appropriate level to reflect their importance and priority to these stakeholders.

Responsiveness

The report includes coverage given to stakeholder engagement and channels for stakeholder feedback.

GLOBAL REPORTING INITIATIVE REPORTING STANDARDS CONCLUSIONS, FINDINGS AND RECOMMENDATIONS

The report, OUCC's CSR Report of 2019, is adequately in line with the GRI Standards in accordance with Core Option. The material topics and their boundaries within and outside of the organization are properly defined in accordance with GRI's Reporting Principles for Defining Report Content. Disclosures of identified material topics and boundaries, and stakeholder engagement, GRI 102-40 to GRI 102-47, are correctly located in content index and report. For future reporting, it is recommended to have more descriptions of OUCC's involvement with the impacts for each material topic (103-1), and how efforts were given to mitigate the impacts.
The potential risks and opportunities related to material topics, such as GRI 302 energy, GRI 303 water resource, GRI 305 emissions and GRI 306 waste from OUCC's business operation are encouraged to be enhanced when consider its sustainable management strategy in the future reporting.

Signed:
For and on behalf of SGS Taiwan Ltd.

AA1000
Licensed Assurance Provider
000-8

David Huang
Senior Director
Taipei, Taiwan
16 June, 2020
WWW.SGS.COM

Management Approach of Material Topics

SDGs icon	Material topics	The purpose of the management approach	Policies	Goals	Grievance Mechanisms	Assessment Mechanisms	Management Approach and Results (page)
8	Economic Performance	Establish a sound corporate governance structure and transparent communication channels, strive to improve business performance and protect investor-related rights and interests.	"Business Integrity Principles" "Codes of Conduct" "Responsible Care Charter"	● Transparent governance ● Stable and continuous income	Stakeholder Contact line (shareholder / investor): 02-27193333#230	Independent Directors and evaluation of the relevant authority	28-39
6 7 8 9 11 12 13 14 15	Energy	Keep close track of its own energy consumption, and formulate the short-, medium- and long-term goals of energy and resources management in OUCC according to domestic laws and regulations and international environmental energy management trends.	"Responsible Care Charter"	Use carbon emissions in 2015 as the base year, and reduce by 1% every year. Accumulated carbon reduction of 16,000 t-CO_2e by 2020			84-90
	Water and Effluents	OUCC faces up to the water resources issue and makes efforts to improve the utilization of water resources through process improvement.	"Labor Health Protection Rules" "Responsible Care Charter"	Use daily water consumption in 2016 as the base year, and commit ourselves to achieve 100 tons, as 20% of reduction in daily water consumption by 2020			96-99
	Emission	Keep close track of its own energy consumption, and formulate the short-, medium- and long-term goals of energy and resources management in OUCC according to domestic laws and regulations and international environmental energy management trends.	"Responsible Care Charter"	Use carbon emissions in 2015 as the base year, and reduce by 1% every year. Accumulated carbon reduction of 29,000 t-CO_2e	Business contact for environmental protection: 07-6413101#2302	ISO 14001 Environmental Management System ISO 50001 Energy Management System ISO 14064-1 GHG emission inventories Environmental regulations	86-87
	Effluents and Waste	Carry out the Directions for Implementation of Safety, Health and Environmental Protection Policy, and appoint a dedicated personnel responsible for supervision and promotion.	"Code of Control Procedures for Wastewater Discharged into the Wastewater Treatment Plant"	Meet regulatory requirements, zero environmental incidents			98-99
	Environmental Compliance	With an environmental-friendly perspective, environmental management is rigorously implemented in the process of industrial development; we not only comply with the requirements of the regulations and related standards, but also make efforts to reduce the production of harmful substances produced in the production process.	"Safety, Health and Environmental Protection Policy" "Domestic and foreign environmental regulations" "Responsible Care Charter"				103
3 4 5 8 9	Employment	OUCC believes that employees are important assets, so we are committed to providing comprehensive training, good welfare and working environment. Meanwhile, we emphasize labor interests and rights and have labor union and a complaint handling mechanism.	"Business Integrity Principles" "Code of Conduct and Ethics for Employees" "Responsible Care Charter"	● Complete and excellent employee care ● Employee-friendly workplace ● Zero labor rights and interests infringement	Stakeholder contact line (employee) 02-2719-3333#281	OHSAS 18001 Occupational Safety Management ISO 45001 Occupational Health and Safety Management System Labor union, collective bargaining agreements Domestic employment law	58-72
	Labor/Management Relations						62
	Occupational Health and Safety	Take an initiative to join the "Taiwan Responsible Care Association (TRCA)" to continuously improve and increase the health and safety performance in the plant.	"Labor Health Protection Rules" "Responsible Care Charter" "Various Disaster Emergency Response Plan"	Zero workplace disaster			112-119
	Training and Education	Good talent training and development can help attract talents and improve productivity	"Responsible Care Charter"	Create a diverse development environment for employees through a complete training system			66-69
	Socioeconomic Compliance	OUCC strictly abides by the labor and human rights-related laws and regulations of the government, and treat all people fairly.	"Business Integrity Principles" "Responsible Care Charter"	100% compliance with local regulations	OUCC Taipei: 02-27193333	Domestic socioeconomic law	103

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Note: "*"are volutarily disclosed material topics of OUCC, excluding the identified 2019 material topics.

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