

SUEZ ASIA

Essential

苏伊士
亚洲快讯

A U T U M N 2 0 2 1



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SUEZ's ice pigging services in Asia

It is critical to keep water pipes clean to ensure water quality. The traditional method adopted by drinking water operators is not effective in cleaning water pipes. Since the launch of the Ice Pigging™ technology 10 years ago, SUEZ has been deploying it in many parts of the world, like in Australia, the Netherlands, Germany, the UK, Singapore and Greater China, helping water operators improve water quality and customer satisfaction.



2016 Singapore
 has been providing Ice Pigging™ services to the city since 2016

2019 Taipei
 worked with the Taipei Water Department twice to complete cleaning of 50km drinking water pipe

2020 Hong Kong
 cleaned drinking water pipes and sea water pipes in different parts of the territory

2021 Chongqing & Yixing
 completed complex pipe cleaning in different settings from municipal water networks under roads to water pipes within residential communities

What is ice pigging?

Ice pigging is the process of cleaning the inside of pipes with the help of ice slurry to remove sediment, biofilm, iron, manganese and other chemical elements. Ice slurry is produced with a scientific portion of ice and water. It won the Grand Jury Award in the 'Best Manufacturing/Processing Technology' category at the World Food Innovation Awards 2016.

0 chemicals used
0 excavation required
0 secondary pollution generated



Waylung won a 24-month contract with the Environment Protection Department to collect food waste from Hong Kong Island. Starting from 30 September 2021, around 11.5 tonnes of food waste will be collected from about 65 collection points daily and sent to O-Park1 for recycling. The treated waste will be transformed into useful compost products and biogas, which will be used as renewable energy for power generation.

SUEZ launches new solid waste management digital platform FEISIGHT

On 21 July 2021, FEISIGHT, a new sustainable solid waste management digital platform, jointly developed by SUEZ and Aden for all companies that generate solid waste, was launched. FEISIGHT helps customers plan, maintain, optimise and customise solid waste resource management as well as realise the comprehensive digital transformation of industrial solid waste and hazardous waste accounts. Over 150 representatives from Covestro, Unilever, Solvay, Shanghai Municipal Council, L'Oreal, Disney, Novo Nordisk, BASF, IKEA, and other renowned companies attended the conference in person or watched the online broadcast.



SUEZ wins equipment and technical services contracts

In the third quarter of 2021, SUEZ Asia won 9 contracts to supply equipment and technical services to wastewater treatment plants in China and Southeast Asia.

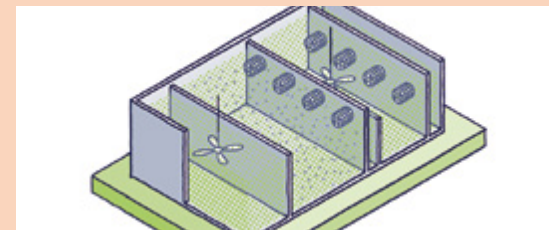
西安市太平河生态综合治理工程项目水质提升站设计及主工艺单元集成商(高效沉淀池和生物滤池)签约仪式



Xi'an, Shaanxi

Rehabilitating the local ecology and protecting the water environment

The Taiping River rehabilitation is a key infrastructure project in Xi'an. SUEZ provides Densadeg™ Super C and aerobic filter process to ensure the effluent meets Quasi-Class III water quality standard and can be used for the landscape to help protect the local water environment.



The Philippines

SUEZ's first engineering & procurement (EP) project in Southeast Asia

SUEZ has been awarded the first EP project for Southeast Asia as an EP subcontractor responsible for the design of Moving Bed Bioreactor (MBBR) system in the exclusive agreement under the consortium of Toshiba Water Solution and Frey-Fil Corp in the Philippines. The consortium is responsible for the design and construction as well as one year of operation and maintenance of the 16,000m³/day wastewater treatment plant in Hinulugan Taktak, a protected area located in Rizal, the Philippines.



Suzhou, Jiangsu

Reusing industrial wastewater for production

SUEZ teamed up again with Hengli Group to improve the industrial wastewater reuse rate in the latter's chemical fibre project to 34.2%. SUEZ also optimised its mode of collaboration by forming an alliance with the design institute to design and build the plant, meeting the client's need for time-constrained project delivery.



Qingyang, Gansu

Improving treated water quality through patent technology

SUEZ's 'Removal of Sulfate by Chemical Method' patent technology helps remove sulfate in brine water by combining two-stage high-efficiency sedimentation tanks.



Changsha, Hunan

Optimisation and upgrade to save on land use

SUEZ upgraded the Densadeg™ equipment in the original tank by optimising the civil engineering structure, boosting wastewater treatment capacity by 67% to 300,000 m³/day and saving one-third of land.

Yan'an, Shaanxi

Reusing wastewater to conserve water resources

This is the first batch of PPP demonstration projects in Yan'an City. SUEZ provides Densadeg™ and Flopac V™ equipment and installation services to the plant to optimise effluent quality as well as to increase the reuse rate of water recycled via the ultrafiltration system. The treated wastewater is used for industrial circulation cooling, municipal landscape irrigation and street washing.



SUEZ actively participates in industry exchanges



China Ecological & Environmental Industry Summit About Achieving Carbon Neutrality

08-10/07/2021 in Chengdu

Laura Sun, Senior Vice President of SUEZ Asia, moderated a summit dialogue on the topic of 'How the Environmental Industry can Achieve Carbon Neutrality' at the forum, which was based on the Forum's theme of 'Linking and Restructuring: New Power of Industry under the Vision of Carbon Neutrality'.



Water Supply Summit Forum About Innovation and Development of the Water Industry

21-23/07/2021 in Shanghai

Dr. Felix Fan, Senior Vice President of SUEZ Asia, talked about SUEZ's development strategies in China during a sharing session at the event. In the appraisal for outstanding innovation cases of the water industry in 2020-2021 organised by the forum, Macao Water's 'Smart Customer Services System for Sustainable Development' project and Jiangsu Sino French Water's 'Smart Fire Hydrant Design and Application' project won the 'Best Mechanism and Model Innovation' Award.

SCIP+ Innogreen Contest About Innovation for Start-Ups

18/06/2021 in Shanghai

Since inception of the contest in 2019, SUEZ and its two joint ventures in SCIP have been actively participating and providing technical support to the event, with the aims of nurturing innovative talents, promoting innovation and transforming results into productivity, as well as facilitating green development of the industry and the Park.

COP15 Pre-event Activity About Protection of Biodiversity

06-07/06/2021 in Kunming

SUEZ exchanged views on the topic of 'Nature-Based Solutions to Cope with Future Challenges' and 'How Enterprises Could Help Restore Biodiversity'. SUEZ also shared the Group's nature-based solutions for industrial wastewater treatment, which have been applied in projects such as the Libellule Zone[®] wetland in SCIP.

Qingdao International Water Conference About Wastewater Treatment and Reuse

05-08/07/2021 in Qingdao

SUEZ was the silver sponsor of the event. Four of its experts were invited to give speeches in the conference to share the Group's successful solutions on design, construction and operation of the industrial wastewater treatment plants as well as industrial wastewater and sludge reuse.





Singapore International Water Week About Water Resource Management

21/06-02/07/2021 Virtual Meeting

SUEZ's 28 delegates delivered speeches during the online event. Steve Clark, CEO of SUEZ Asia, was the keynote speaker at the plenary session, sharing the actions that SUEZ has taken against climate uncertainties.



Infrastructure Asia Forum 2021 About Enabling Asia's Recovery through Sustainable Infrastructure

23/06/2021 in Singapore

Farchad Kaviani, Managing Director of SUEZ Municipal Water for Southeast Asia, participated in one of the forum's discussions with the Public-Private Partnership (PPP) Centre of the Philippines. He shared his perspective on two water projects in the Philippines, namely the Bislig City Water Supply Project and Ormoc City Water Supply System Project.



French Society of Plastics Engineers Virtual Meeting About Plastic Recycling and Reuse

27/05/2021 Virtual Meeting

David Bourge, General Manager of SUEZ Circular Polymer Plant, conducted a virtual tour of SUEZ's first plastic recycling plant in Thailand to help participants understand how the facility produces high quality recycled LDPE and LLDPE polymers using plastic waste. 40 French experts from various sectors, including automotive, packaging, construction, electrical & electronic equipment, sports and leisure, as well as aeronautics, explored the means of promoting the utilisation of recycled polymers.





SUEZ 2030 targets for sustainability

- Reduce greenhouse gas emissions from operations by 45%
- Eliminate 20 million tonnes of CO₂ emissions per year for clients
- Provide clients with 100% sustainable solutions
- Contribute to the 1.5°C trajectory

SUEZ Asia organises carbon neutrality webinars for a sustainable future

To enhance the awareness of carbon neutrality in staff, partners, clients and other stakeholders, SUEZ Asia organised four carbon neutrality webinars from 17 to 31 August 2021.

4 webinars

10 expert speakers

shared insights into China's latest carbon neutral policies, carbon neutrality in financial and economic sectors, as well as technical means to achieve carbon neutrality and an overview of SUEZ's solutions.

1,387 participants

including partners and clients from SCIP DC, BASF, Covestro, DOW, CNOOC, Aden, Cargill, ExxonMobil, SK, Chiho Group and more.

6 Golden Rules for operational excellence

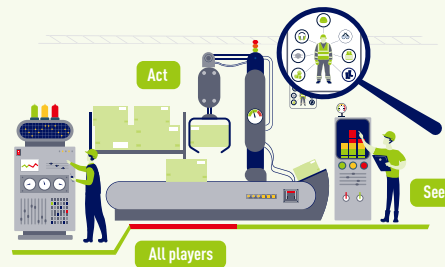
SUEZ has launched the '6 Golden Rules' globally to foster unified culture to achieve operational excellence and increase corporate competitiveness. In China, SCIP Sino French has been invited by the Group to implement the '6 Golden Rules' as a pilot project. SCIP Sino French, with its solid foundation in fine and standard management, will serve as a reference for other projects within the SUEZ Group and contribute to optimisation of the rules. Currently, Jiansu Sino French Water, Chongqing Sino French Water, Suzhou Sino French Water and Macao Water are implementing the '6 Golden Rules'.



KNOW YOUR COSTS AND YOUR ENVIRONMENTAL IMPACT



MANAGEMENT BY KPIs



VISUAL MANAGEMENT



LOSS IDENTIFICATION & IMPROVEMENT IDEAS

SCIP Sino French selected as SUEZ's pilot project



DAILY PROBLEM SOLVING



ORGANISE SERIES OF MEETINGS



SUEZ's laboratory and new office in Beijing put into operation

On 12 August 2021, SUEZ's laboratory in Beijing was put into operation. The first laboratory of Treatment Infrastructure, it is equipped with 4 water treatment testing platforms for refractory industrial wastewater treatment, drinking water treatment, biological analysis and sludge analysis. Over 40 water treatment process designs can be verified via these platforms before project execution.

In addition, due to business development and staff expansion, SUEZ has expanded its Beijing Office to make its workplace more conducive for the staff. The new office has been put into use since 27 August 2021.



SUEZ wins accolades in Asia



SUEZ Asia wins World Green Organisation's Sustainable Business Award 2020

The award was given in recognition of the Group's contributions in ESG (environmental, social and governance) efforts. The assessment was conducted across four categories - workplace quality, environment protection, operation practice and community involvement.



SUEZ named Most Socially Responsible Member Enterprise 2021

SUEZ was named 'Most Socially Responsible Member Enterprise 2021' by China Environment Chamber of Commerce at the China Ecological & Environmental Industry Summit. This was to commend the Group's contributions to the society by assuming the corporate social responsibility, such as donations to governments and hospitals in support of the COVID-19 pandemic control.



Xi'an CAIB Sino French honoured as outstanding enterprise of 'Social Responsibility Award in Xi'an for 2020'

This is to commend the JV's contributions to the construction of Xi'an Eco-industrial Park, ongoing investment in the Park as well as green sustainable development.



Chongqing Sino French Environmental Excellence R&D Centre wins 3rd prize in innovation contest

The JV's Aquagile® Inspulse and Precision Aeration Intelligent Control System, which helps wastewater treatment plants achieve digital transformation and energy conservation, makes use of smart control technology for the key process of wastewater treatment processes. Extensive testing has shown that the system's performance leads national standards.



SCIP Sino French rated Enterprise Technology Centre in Fengxian District

The rating is a recognition of the JV's capability in innovation and research. The JV relies on its water research centre to develop research projects. To date, it has won 46 national patents and had 38 theses published in high-profile journals.

Waylung named OSH Progressive Enterprise under 'Hong Kong Safety and Health Certification Scheme'

Waylung makes use of '5S management' to improve health and safety management, so as to provide a safer and healthier workplace for its staff.



SUEZ Circular Polymer Plant becomes Thailand's first certified recycled plastics processor

The SCP plant has been recognised as a PCX-accredited processor on the basis of an independent assessment conducted by Pricewaterhouse Coopers. This confirms SUEZ's operations are in compliance with PCX's 'Plastic Pollution Reduction Standard', which provides a framework for the implementation of a credible and verifiable plastic offsetting programme. PCX is a non-profit organisation that partners with sustainability-conscious businesses around the globe to responsibly offset their plastic footprint.

Expert Exchanges

In the third quarter of 2021, SUEZ has hosted meetings and received visits from external stakeholders to facilitate technical exchanges and mutual understanding.



Macao Water

Macao Water held seminars in partnership with local community groups in May and June 2021 to promote the 'Subsidy Programme for Repair of Service Connections of Low-rise Buildings' as well as to draw public attention to precautions they can take against adverse weather and proper maintenance of secondary water supply systems in buildings.



Chengdu Sino French

On 18 May 2021, Jacques Dumasy, Consul General of French Consulate in Chengdu, visited Chengdu Sino French. During the visit, Mr. Dumasy exchanged views with the JV staff on WWTP operations and management as well as on plans for future development.



SCIP Sino French

Zhou Min, Director of SCIP Water Research Centre, took part in the Shanghai International Water Seminar on 3 June 2021. He shared his views on the current state of the water business and also discussed future industry trends during a session titled 'Water Operations in the Big Data Era'.



Taiwan Dafa

On 6 May 2021, SIE Ming Da, Chairman of Corporate Synergy Development Centre, a non-profit organisation on industrial technical services, led a delegation to visit the Taiwan Dafa WtE plant to find out more about the hazardous waste treatment industry in Taiwan as well as to offer ideas on how to improve waste treatment processes and waste management.



Tanzhou Water

On 15 July 2021, Ye Hongguang, Deputy Mayor of Zhongshan City, led a delegation from the Municipal Bureau of Ecology and Environment, Water Bureau and Tanzhou Town Government to inspect the environment around the water source and surrounding industrial areas.



SUEZ Circular Polymer Plant

On 15 June 2021, Jerome Le Borgne, Project Development Director, SUEZ Southeast Asia, delivered a speech during the 'ALL_Thailand for Sustainable Plastic Management' webinar. He shared on SUEZ's projects in plastic recycling, Waste-to-Energy and various infrastructures, demonstrating the Group's dedication to support the Bio-Circular-Green (BCG) economy of Thailand and the Government's vision to transit into a low-carbon future as per their commitment in the Paris Agreement.



Chongqing Changshou Sino French

Xie Zhilong, head of a research group from the Ministry of Water Resources, led a delegation to visit the JV's wastewater treatment plant to understand the Park's wastewater treatment practices, assess the quality of effluent and learn about safe production practices.



Xi'an CAIB Sino French

On 25 May 2021, Li Yuming, Chief Engineer of Shaanxi Natural Environment and Ecology Bureau, led a delegation comprising the provincial inspection team as well as the local government officials, on a visit to the JV.



Sino-Singapore SUEZ

On 10 June 2021, Li Yaping, Mayor of Suzhou City, visited Sino-Singapore SUEZ to learn about the hazardous waste treatment in the Park.



Macao Water

As Silver Sponsors, SUEZ and Macao Water attended the France Macau Chamber of Commerce's Charity Gala Dinner held on 28 May 2021. The proceeds of the dinner went to charity.

SUEZ Asia Innovation Trophy 2020 Best Innovation Award projects' sharing



Treatment Infrastructure MSBR Retrofitting of Changsha Kaifu WWTP Phase III Upgrade Project



As per contract, the project team needs to retrofit the existing four Modified Sequencing Batch Reactor (MSBR) tanks in Changsha Kaifu Wastewater Treatment Plant. 'Embedded retrofitting technology' has been applied in this project to make optimal use of the existing tank structure to reduce the construction workload and ensure the continuity of production during retrofitting. The project team has taken the following measures to upgrade the plant without using more land.

- Adopting the Integrated Fixed Film Activated Sludge (IFAS) process, which makes use of activated sludge and biofilm attached on the Moving Bed Biofilm Reactor (MBBR) media in the aeration tank for carbon removal and nitrification, thereby optimising the ammonia nitrogen content in effluent. This helps to reduce carbon source dosage as well as operational costs. In addition, the project team uses domestic media to lower the cost and shorten the delivery time, with desired results achieved.
- Enlarging the anoxic zone and prolonging the residence time of wastewater in the zone for better denitrification effect.
- Installing lamella in the sedimentation tank to increase hydraulic pressure and to better separate the suspend solids.



SCIP Sino French

Solving salt crystallisation blockage in aeration tray by ozonation process of high-salinity wastewater



SCIP Sino French adopts the Granular Activated Carbon (GAC) + ozonation process to treat high-salinity industrial wastewater. Micro-porous aeration is used for O₃ dosage. After several hours of operation, salt crystallisation on micro-porous diffusers increases the dosage pressure and decreases O₃ flow. After finding that salt crystallisation can be dissolved rapidly when immersed in high-salinity water, the project team came up with the solution of immersing the aeration tray in high-salinity wastewater. By retaining

the existing civil structure, dosing pipelines, aeration facilities and adding gas exhaust pipes between dosing points and intake valves to immerse the aeration tray in high-salinity water through pressure control, the blockage problem is successfully resolved.



O - Park1

Emergency bypass operation for biogas holder



Biogas is being generated continuously during the anaerobic digestion process of treating food waste. The biogas holder is one of the key facilities of O-Park1 to provide buffer storage of biogas generated from the anaerobic digestion and to regulate a stable operation pressure to the biogas network. Without the biogas holder, the production-consumption imbalance of biogas will result in abnormal pressure of the biogas network as well as anaerobic digestion (AD) tanks and hence a high risk of explosion. It is not

possible to commence or halt the biogas production suddenly without upsetting the biological activity. So, the project team has established a mechanism to isolate the biogas holder from the network and allow the plant to sustain its normal operation under a specific bypass procedure. Detailed procedures have been established and run on site with success. The procedures have also been reviewed and approved by the Hong Kong Electrical and Mechanical Services Department.

SUEZ organises activities on World Environment Day

On World Environment Day on 5 June 2021, SUEZ Asia organised various environmental protection activities to contribute to 'Ecosystem Restoration', the theme for this year.



Jiangsu Sino French

Jiangsu Sino French

The JV's staff cleaned up the trash along the riverside.

Chongqing Changshou Sino French

The JV held the Plant Open Day for local students to enhance their awareness of environmental protection.



Chongqing Changshou Sino French



Chongqing Sino French Water

Chongqing Sino French Water

The JV's volunteers cleaned the beach.

SCIP Sino French and SCIP SITA

They supported the Park's Pollution Prevention Group by taking part in the visit to the wetland on World Environment Day.



SCIP Sino French and SCIP SITA



WENT Landfill

We take action to save energy, reduce emission and conserve resources

WENT Landfill

As a member of the nonprofit organisation Shared Value Initiative Hong Kong, SUEZ Asia invited delegates of the organisation to visit WENT Landfill to know more about solutions for solid waste treatment as well as promotion of circular economy in Hong Kong.



Suzhou SIP Sino French

Suzhou SIP Sino French

On 1 June 2021, Suzhou SIP Sino French volunteers cleared trash along the banks of the Wusong River to help protect water resources.



Macao Water

Macao Water

Macao Water supported the Dress Casual Day organised by Macau SAR Government from 5 July to 13 August 2021 to advocate low-carbon emission.



SCIP Sino French

SCIP Sino French

SCIP Sino French organised bike-riding and beach cleaning activities to promote low-carbon commuting and environmental protection.

We co-build a safe, harmonious and inclusive community

Macao Water

Macao Water and the Macau Special Olympics held a swimming contest on 19 June 2021 to promote social inclusion to the public.



Macao Water

SUEZ Taiwan

SUEZ Taiwan donated 1,000 protective masks to Renwu Police Station to protect officers against COVID-19.



SUEZ Taiwan



TLM (Indonesia)

TLM (Indonesia)

Tirta Lyonnaise Medan (TLM), SUEZ's water operations project in Indonesia, as always, made a donation to underprivileged families in the local community during the Eid al-Adha Festival for Muslims.

Chongqing Sino French Water

On 18 May 2021, volunteers from Chongqing Sino French Water provided free water pipe repair services to the local community and helped ensure the smooth running of COVID-19 vaccination activities.



Chongqing Sino French Water

Everbright SUEZ in Changzhou

During the Dragon Boat Festival, Everbright SUEZ staff visited elderly who live alone in the local community.

Everbright SUEZ





Jiangsu Sino French Wastewater

We spare no effort in nurturing the new generation

Jiangsu Sino French Wastewater

Jiangsu Sino French Wastewater held its Plant Open Day to enhance students' awareness of water conservation.



SCIP Sino French

SCIP Sino French

To nurture more talents for the environmental industry, SCIP Sino French and East China University of Science and Technology signed an agreement on 13 May 2021. The two parties pledged to strengthen their cooperation in education and R&D projects.



SCIP Sino French

SCIP Sino French

SCIP Sino French gave a lecture on environmental protection to primary school students, focusing on water supply and wastewater treatment processes. A quiz was also conducted to cultivate an awareness of environmental protection in the students.

Gifts and Invitations Policy

SUEZ has its own Gifts Policy to guide staff whether to offer or receive gifts. It ensures the staff comply with the Group's ethics guidelines, avoid violation of the anti-bribery law and maintain positive corporate image. Staff can refer to the Policy for the financial threshold applicable in their entity to know whether the relevant gift / invitation is permitted. If it is inevitable to receive or offer gifts, the staff needs to have prior approval from the management and / or ethics officer and register the relevant details to be duly traced.

In the Gifts Policy, the gift is not only defined as goods but also invitations, such as invitations to restaurants, concerts or sport events, as well as travel or technical trips.



Example

The supplier insists that you visit their factory by the seaside rather than the one that is closest to your office. The supplier offers to cover all your travel costs.

Question

What questions do you think you should ask yourself here?

- A** Is this trip really necessary as part of your job?
- B** Should your entity be covering the cost of your flights?
- C** Aren't there any closer sites that you could visit?
- D** None of the above options.

Explanation

- 1** If a supplier invites you to visit their facilities, it is best if they do not cover the cost of any flights.
- 2** In any case, you should be visiting the nearest site.
- 3** Whatsoever the circumstances, ask for the advice of your company's management and / or ethics officer.

The answer is: A, B and C



any questions, please send email to:
ethics.asia@suez.com



SUEZ organises various staff activities

Chengdu & Chongzhou Sino French

The two JVs co-hosted a sport game to encourage their staff to take part in physical activities.

SCIP AnYo SUEZ

The JV staff celebrated the 1st anniversary of the founding of the company.

Macao Water

Macao Water staff visited an exhibition to foster their patriotism.





SCIP SITA

The JV organised a photo contest and a quiz based on the theme of safety.

Jiangsu Sino French

Water volunteers helped in nucleic acid testing

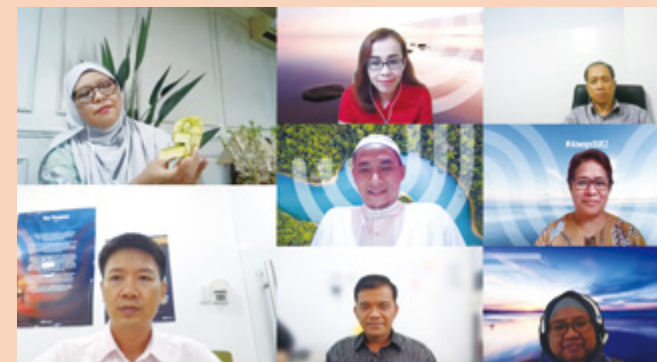


Chongqing Sino French

The JV organised a mini marathon.



SUEZ Southeast Asia held a virtual team building event named 'Philippines Got Talent' for staff who have not met each other in person due to COVID-19 to showcase their talent in music, singing and dancing, so as to enhance mutual understanding.



An online event was organised to celebrate Hari Raya as well as to promote a better understanding of different cultures in Southeast Asia and enhance communication among colleagues. Muslim staff, who represent one-third of the total workforce in SUEZ Southeast Asia, shared about the significance of Hari Raya and how it is celebrated, as well as traditional cuisine and snacks prepared for the festival.

SUEZ Asia H&S performance review for 2021 H1

Frequency Rate (FR)
Actual

1.82

Frequency Rate (FR)
2021 Target

< 2.33

Severity Rate (SR)
Actual

0.06

Severity Rate (SR)
2021 Target

< 0.178



411 / 584

Management safety visits conducted / 2021 target



5.8h

H&S training hours per person

SUEZ Health & Safety Manager's Guide

SUEZ has launched the Health & Safety Manager's Guide recently to provide effective levelers and useful tools in the below 8 aspects for the managers to organise and to enhance their leadership in H&S.



Ensuring a healthy and safe work environment



Ensuring progress via the managerial safety visit



Knowing how to promote good behaviour



Engaging staff



Lessons learned



Applying fair discipline

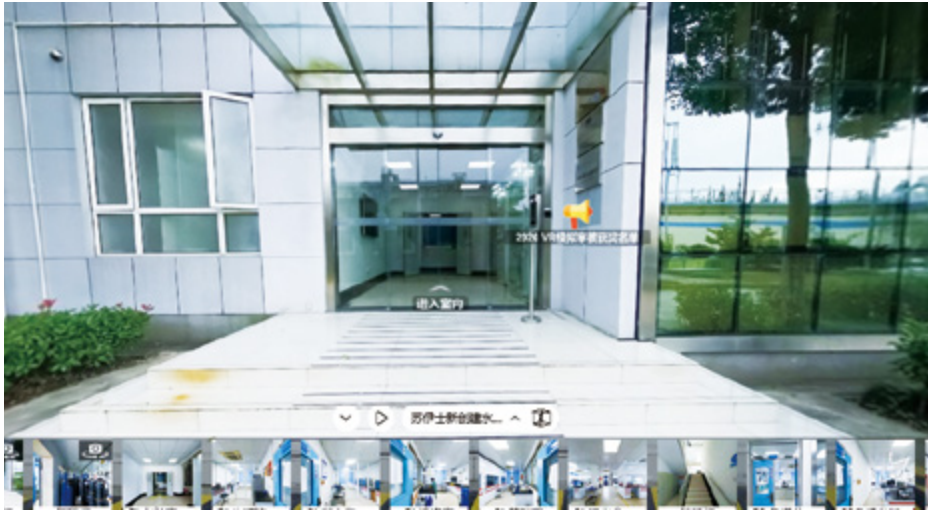


Ensuring subcontractors adhere to our safety rules



Knowing how to balance safety with other priorities


H&S good practices sharing



Virtual reality evaluation for Water Operations laboratories

The traditional on-site health and safety evaluation is not an easy approach for health and safety training, as it is not possible to review the same evaluation process again or to have all the relevant staff participate in the full process of evaluation.

To optimise the traditional evaluation method, Water Operations has launched the Lab VR Evaluation in 2020. Virtual reality technology is used to design scenes and set up risks in the laboratory, and all the relevant staff from different joint ventures are invited to participate in the evaluation to identify the safety risks. The participants can also experience a different version of the virtual reality scene that comes with suggested answers. This helps ensure true restoration of the site, review and recheck, as well as full staff participation.



1-CLR-6

待改进处
干燥箱计量校准有效期至2020年7月16日，已过期；
设备温度控制未按照要求设定，且温度超过设定温度；
干燥箱上放置安全帽。

依据

- 1.《中华人民共和国计量法》第九条：县级以上人民政府计量行政部门对社会公用计量标准器具，部门和企业、事业单位使用的最高计量标准器具，以及用于贸易结算、安全防护、医疗卫生、环境监测方面的列入强制检定目录的工作计量器具，实行强制检定。
- 2.《计量法实施细则》第二十五条：任何单位和个人不准在工作岗位上使用无检定合格证、证或者超过检定周期以及经检定不合格的计量器具。
- 3.《检测实验室安全 第3部分：机械因素GB/T 27476.3-2014》A.8.2 安全标识：加热设备上应有醒目的电源、温度指示灯和控制开关。温度调节控制器和设备接地应定期进行检查和维护。
- 4.《检测实验室安全 第3部分：机械因素GB/T 27476.3-2014》5.3.11.2：应保持实验室工作区域的整洁，正确使用和定期维护设备。5.3.11.4 应区分实验室内需要和不需要的东西，在实验室操作区域不应放置、存储非必须的测量仪器设备及其配件、工具等物品。

改进措施建议
按照校准周期提前1个月进行计量器具的校准；
实验室安全控制设备或仪器，应按照规定操作要求进行温度、压力、液位等操作控制；
实验室工具、仪器设备、配件、个人防护用品等按室内务管理规定，放到指定位置。

It helps ensure true restoration of the site, review and recheck, as well as full staff participation.



焦点新闻

苏伊士为亚洲多个城市提供碎冰清管服务
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集团动向

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职安健

2021 年上半年苏伊士亚洲地区职安健绩效回顾
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苏伊士为亚洲多个城市提供碎冰清管服务

清洁的管道对确保水质至关重要。供水运营商使用传统的管道清洁方式，效率并不理想。碎冰清管技术已问世 10 年，苏伊士把该技术应用于澳大利亚、荷兰、德国、英国、新加坡及大中华地区的项目中，帮助供水运营商改善管网水质并提升客户满意度。



2016 于新加坡

自 2016 年至今为新加坡提供碎冰清管服务

2019 于台北

与台北自来水事业处两度携手完成 50 公里的供水管道清洗

2020 于香港

清洗不同地区的饮用水及海水管道

2021 于重庆及宜兴

完成多个小区庭院复杂的管道清洗，清洗的区域涉及多条道路的市政管网及居民居住小区的内部管网

碎冰清管是一种什么技术？

碎冰清管是使用科学冰水比例的冰浆对管道进行清洁，去除管道中的沉积物、生物膜、铁和锰等杂质以提升水质。该技术在 2016 年世界食品创新奖的“最佳制造 / 加工技术”类别中荣获大奖。

0 化学品
开挖
二次污染



卫龙获 厨余回收 合约

卫龙获得香港环保署授予为期两年的厨余回收合约。根据合约，卫龙从2021年9月30日起每天到香港岛大约65个厨余回收点收集约11.5吨厨余，送往由苏伊士运营管理的香港有机资源回收中心进一步处理。厨余经处理后转化成堆肥产品和沼气，用作可再生能源进行发电。

苏伊士发布可持续固废管理 数据平台 FEISIGHT

2021年7月21日，苏伊士与埃顿集团合作推出为所有产废企业定制开发的可持续固废管理数据平台 FEISIGHT。该平台可帮助客户规划、维护、优化和定制固废资源管理，不仅能实现生活垃圾的源头分类和数据电子化，还能使工业固废和危险废弃物的台账实现全面数字化转型。来自科思创、联合利华、索尔维、上海市政府、欧莱雅、迪士尼、诺和诺德、巴斯夫、宜家等知名企业及机构代表150余人到场或通过网络直播参加系统发布会。



苏伊士获多项 设备供货和 技术服务合约

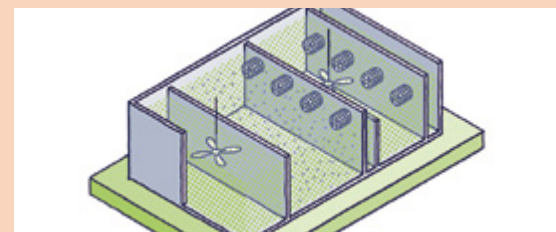
2021年第三季，苏伊士在中国及东南亚国家获得九项污水处理项目的设备供货和技术服务合约。

西安市太平河生态综合治理工程项目水质提升站设计及主工艺单元集成商(高效沉淀池和生物滤池)签约仪式



陕西西安 生态整治 保护水体环境

苏伊士为市重点工程“西安市太平河生态综合治理项目”提供 Densadeg™ Super C 及好氧滤池工艺，使出水达到三类水体水质标准并用作景观用水，保护水体环境。



菲律宾 苏伊士在东南亚的首个工程设计 与采购合同

苏伊士与菲律宾的合作伙伴东芝水务解决方案 (Toshiba Water Solution) 以及 Frey-Fil Corp 组成联合体，负责为处理能力为 1.6 万立方米 / 日的 Hinulugan Taktak 污水处理厂设计和建设移动床生物反应系统，以及项目建成后一年的运营管理，以保护菲律宾黎刹省的水体环境。



江苏苏州 工业污水回用于生产

苏伊士与恒力集团再度合作，使其化纤项目的工业污水回用率达到 34.2%。同时苏伊士优化合作模式，与设计院组成联合体共同设计建造污水处理厂，合理缩短工期以满足客户需求。



甘肃庆阳 专利技术提升处理效益

利用苏伊士的专利技术“化学法去除硫酸根”，结合两级串联高效沉淀池，去除纳滤浓水的硫酸根。



湖南长沙 优化改造 节约土地

苏伊士优化土建结构，在原池改造高效沉淀池，使处理规模扩容 67% 后达到 30 万立方米/日，节约 1/3 用地。

陕西延安 再生水回用 节约水资源

苏伊士为延安 PPP 示范项目提供 Densadeg™ 高密度沉淀池和 Flopac V™ 好氧滤池设备和安装服务，优化出水水质，提升再生水回用率，用于工业循环冷却、市政绿化灌溉和道路冲洗。



苏伊士 积极参加 行业交流



中国生态环境产业高峰论坛 关于实现碳中和

08-10/07/2021 成都

今年会议的主题为“链接与重置：碳中和愿景下产业新势力”。苏伊士亚洲地区高级副总裁孙明华主持“环境产业如何助力碳中和”高峰对话。



供水高峰论坛 关于水务行业创新发展

21-23/07/2021 上海

苏伊士亚洲地区高级副总裁范晓军博士在会上分享苏伊士在中国的发展策略。在论坛组织的2020-2021年度水行业优秀创新案例评选活动中，澳门自来水“构建智能客服，推动永续发展”案例以及江苏中法水务“智能消防栓的设计和应用”案例获“机制及模式创新奖”。

SCIP+ 绿色化学化工 创新创业大赛启动仪式 关于初创企业创新发展

18/06/2021 上海

自 2019 年首届大赛开始，苏伊士及旗下在上海化学工业园的两家合作公司为园区的创新创业实践项目提供资金及技术支持，以发掘创新人才、促进创新和成果转化为生产力、推动行业和园区的绿色发展。

COP15 预热活动 关于维护生物多样性

06-07/06/2021 昆明

苏伊士在会上针对“通过基于自然的解决方案应对未来挑战”议题就企业如何以具体行动帮助恢复生物多样性进行交流，还分享了集团研发的、基于自然的解决方案，如应用于上海化学工业区的蜻蜓湿地处理工业污水。

青岛国际水大会 关于污水处理和资源化利用

05-08/07/2021 青岛

作为大会的银牌赞助商，苏伊士的四位专家应邀在会上发言，分别就工业污水处理厂的设计、建造、运营以及工业污水和污泥的资源化利用等分享了集团的成功案例和解决方案。





新加坡水周 关于水资源管理

21/06-02/07/2021 网络会议

苏伊士共 28 位代表在此活动中发表演讲。亚洲地区首席执行官郭仕达应邀参加开幕式，并分享了苏伊士应对气候不确定性所采取的各项行动。



2021 亚洲基建论坛

关于以可持续基建推动亚洲经济复苏

23/06/2021 新加坡

苏伊士东南亚市政水务执行总裁付文凯在论坛上参加与菲律宾公私合营中心的讨论，分享苏伊士在菲律宾的两个项目：比斯利格市供水项目以及 Ormoc 市供水系统。



法国塑料工程师协会会议

关于塑料回收重用

27/05/2021 网络会议

苏伊士循环聚合物泰国设施总经理 David Bourge 在网络会议上展示苏伊士在泰国首座循环聚合物设施的虚拟实境，让参加者了解这座设施如何利用废塑料生产高品质的循环聚合物。40 多位参会的法国专家分别来自汽车制造业、包装、建筑、电器及电子设备、运动休闲以及航空领域，共同探讨如何推广循环聚合物的利用。





苏伊士 2030 年可持续发展目标

- 减少 45% 的温室气体排放
- 每年为客户减少 2,000 万吨二氧化碳排放
- 为客户提供 100% 的可持续解决方案
- 为全球升温控制在 1.5 摄氏度作贡献

苏伊士亚洲 组织碳中和网络研讨会 推动未来可持续发展

为了提高员工、合作伙伴、客户和其他利益相关者对“碳中和”的认识，苏伊士亚洲在 2021 年 8 月 17 日至 8 月 31 日组织了四场碳中和网络研讨会。

4 场网络研讨会

10 位专家

分享了中国最新的碳中和政策、金融和市场资讯、实现碳中和的技术，并介绍了苏伊士集团相关的解决方案。

1,387 位参与者

包括我们的合作伙伴和客户：上海化工区、巴斯夫、科思创、陶氏化学、中海油、埃顿、嘉吉、美孚、SK、齐合环保等。

践行 “六大黄金法则” 实现卓越运营

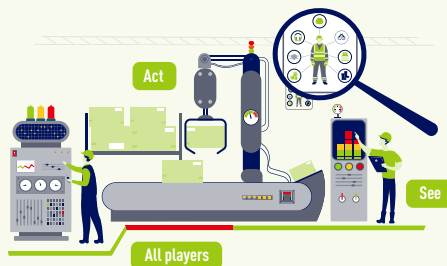
为建立统一的绩效文化,实现卓越运营,提高集团的竞争力,苏伊士在全球范围内推行管理“六大黄金法则”。在中国,上海化工中法凭着卓越的精细化、标准化管理基础,率先获集团邀请作为“六大黄金法则”验证试点,为法则在全球实施提供案例,为完善法则的标准提供参考。目前,江苏中法水务、重庆中法水务、苏州中法环境和澳门自来水也在推行“六大黄金法则”。



知晓成本及对环境的影响



通过设定主要指标 (KPI) 进行管理



可视化管理



识别损失以及提出改进办法

上海化工中法获选为 苏伊士集团的试点项目



解决日常问题



组织系列会议



苏伊士在北京的实验室及新办公区启用

2021年8月12日，苏伊士在北京的实验室正式落成投用。这是水务工程的首个实验室项目，设置了四个水处理工艺试验平台：难降解工业废水处理平台、饮用水处理平台、生物可处理性研究平台和污泥分析及可处理性研究平台，为水务工程项目的40多项水处理工艺设计方案进行验证，为项目执行提供重要的保障。

另外，因业务发展及团队扩大，苏伊士扩充了北京办公室，为员工提供了更舒适的工作环境。新办公区在8月27日正式投用。



苏伊士在亚洲地区 获多个奖项



苏伊士亚洲荣获世界绿色组织颁发 2020 年企业可持续发展大奖

认可了公司在环境、社会和企业管治方面的社会贡献。评估涵盖四个方面：工作场所质量、环境保护、运营亮点以及对社区的贡献。



苏伊士获中国环境商会评为 2021 年最具社会责任会员企业

在 2021 年中国生态环境产业高峰论坛上，苏伊士获中国环境商会评为“2021 环境商会最具社会责任会员企业”，表扬其在过去一年积极履行企业社会责任，如多次向中国各地政府和医疗机构捐献，支援、防控新冠疫情等。



西安中法水务获评“2020 年度西安市履行 社会责任奖”优秀企业

表扬合作公司对西安市生态工业园区建设、招商引资以及绿色可持续发展做出突出贡献。



重庆中法环保研发中心获重庆江北创新创业大赛三等奖

合作公司研发的 Aquagile® SACS 污水处理智能曝气系统运用了污水处理工艺关键过程智能调控技术，经测试性能处于国内领先水平，有利推动污水厂数字化转型与节能降耗。



上海化工中法获评定为奉贤区企业技术中心

这是对合作公司科技创新和研发能力的认可。合作公司以其水研究中心为依托，开展科研，目前取得专利授权 46 项，并在国内外核心期刊发表了 38 篇论文。



卫龙获“香港安健认证计划”职安健进步企业奖

卫龙运用五常法，持续优化职安健措施，为员工建设更安全和健康的工作环境。



苏伊士循环聚合物设施成为泰国首家获认证的再生塑料加工商

根据普华永道的独立评估，该设施获 PCX 认证，意味着苏伊士的运营符合 PCX “塑料污染减少标准”。该标准为实施可信、可验证的塑料抵消计划提供了指导性的框架。PCX 是一家非营利机构，在全球范围内通过与重视可持续发展的企业合作，减少塑料污染。

互访交流

在 2021 年第三季度，苏伊士在亚洲组织了多个会议及接待了不同的代表团，以加强技术交流和增进与外部利益相关者的沟通。



澳门自来水

澳门自来水在 2021 年 5-6 月期间分别与 3 个本地社会团体合办“供水安全小区座谈会”，介绍“低层楼宇总供水设施维修资助计划”、防风抗灾措施以及二次供水系统。



成都中法

2021 年 5 月 18 日，法国驻中国成都大使馆参赞到访成都中法。双方就污水处理厂的经营状况、未来发展进行深入交流。



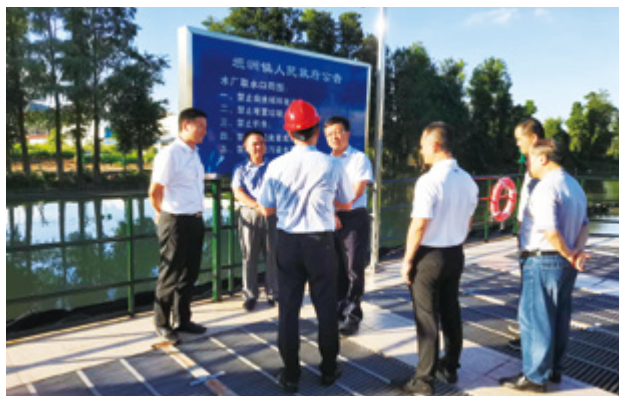
上海化工中法

2021年6月3日，水研究中心主任周珉出席上海国际水展，并参加了“大数据时代下的水处理运营”沙龙，探讨大数据时代的水务现状及未来的发展动向。



台湾大发

2021年5月6日，非营利企业产业技术服务机构中卫发展中心董事长谢明达带领团队到台湾大发废转能厂进行交流，了解有害废弃物处理产业的近况，并对废弃物处理工艺流程和管理提出改善意见。



坦洲自来水

2021年7月15日，中山市副市长叶红光带领市生态环境局、市水务局以及坦洲镇政府代表到坦洲了解水源地及周边工业区环境综合整治情况。



苏伊士东南亚

苏伊士东南亚项目发展总监 Jerome Le Borgne 于2021年6月15日在“全泰国行动起来，推动塑料可持续管理”的网络会议上介绍了苏伊士塑料循环再造项目、废转能项目等，展示了集团支持泰国政府推动“生态-循环-绿色”经济模式，及其在巴黎协定中向低碳转型的承诺。



重庆长寿中法

国家水利部调研组组长谢智龙一行到重庆长寿中法的污水处理厂开展实地调研，了解了工业园区污水治理、出水水质以及安全生产等情况。



西安中法

2021年5月25日，陕西省自然生态厅总工程师李豫明携省环保督查组及当地政府主要官员，到西安中法进行考察调研。



中新苏伊士

2021年6月10日，苏州市长李亚平到访中新苏伊士，了解园区危废处置情况。



澳门自来水

苏伊士及澳门自来水作为银牌赞助商，赞助和出席在2021年5月28日由法国澳门商会组织的慈善晚宴。晚宴筹得的款项作慈善用途。

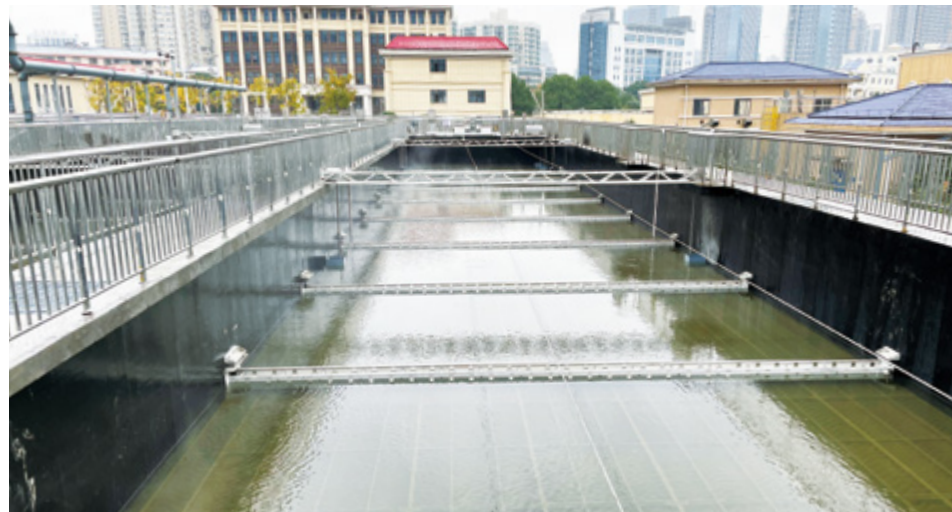
苏伊士亚洲 2020 年创新奖 最佳创新奖项目分享



水务工程

长沙市开福污水处理厂

三期提标扩建工程 MSBR 改造



项目组按客户要求对长沙市开福污水处理厂现有四座采用改良式序列间歇反应器工艺（MSBR）水池进行扩建和提标改造。项目组采用“镶嵌式改造技术”，最大限度利用现有的池体结构，减少改造工程量，使改造期间不停产，并通过以下举措实现污水处理厂扩容提标同时不增加用地。

- 采用固定生物膜——活性污泥工艺（IFAS），在曝气池内投加移动床式生物膜反应器（MBBR）填料，利用活性污泥和填料的生物膜进行除碳和硝化，以优化出水的氨氮含量，同时减少投加碳源，节省运行成本。另外，项目组采用中国国产填料，进一步减低成本以及加快填料供货期，也同样达到预期的效果。
- 增大缺氧区的容积，延长污水在缺氧区停留时间，保证反硝化脱氮效果。
- 在沉淀池中增加斜板，增大水力负荷，保证出水沉淀效果。



上海化工中法

高盐水臭氧氧化工艺

曝气盘盐结晶堵塞解决方案



上海化工中法采用活性炭吸附——臭氧氧化联合处理工艺处理高盐水工业污水。臭氧氧化采用微孔曝气形式，长时间运行后由于微孔曝气盘盐结晶堵塞，出现投加量下降的现象。通过曝气盘简易浸泡实验，项目组发现盐结晶在高盐水浸泡下可迅速完全溶解，因此提出使用高盐水浸泡曝气盘溶解盐结晶的解决方案。在保留现有土建、投加管线与曝气设

施的基础上，在单个投加点和臭氧进气阀门之间的进气支管上增设排气管路，通过压力控制，保证高盐水进入并没过曝气盘，实现浸泡效果。改造完成后，成功解决了盐结晶问题。



香港有机资源回收中心

为沼气柔性储气装置增设应急旁路

实现不间断运行



处理厨余的厌氧消化过程中持续产生沼气。沼气储气装置是有机资源回收中心最为关键的设施之一，对厌氧消化过程中产生的沼气进行存储，调节运行过程中沼气管网中的气压。如果没有沼气存储设施，沼气产销不平衡会导致沼气管网以及AD罐的压力过高或过低，存在较高的爆炸风险。沼气生产过程无法急启急停，否则会影响系统中微生物的状态。为此，项目团

队开发了一套旁路机制，在沼气存储装置与沼气管网隔离之后仍能保证全厂的正常运行不受影响。该机制已成功在项目中实施，并已通过了香港机电工程署的审核。

苏伊士积极参与世界环境日活动

6月5日是世界环境日,今年的主题为“修复生态系统”。苏伊士亚洲组织多项环保活动,为修复生态贡献力量。

江苏中法水务

组织员工收拾江边垃圾,保护母亲河。



重庆长寿中法

举办开放日,接待当地学生,培养他们的环保意识。



重庆中法供水

组织志愿者进行净滩活动。



上海化工中法及上海化工升达

支持园区污染防治组的工作,并参与世界环境日当天举办的参观湿地活动。





新界西堆填区

我们采取行动推动 节能减排及资源保护

新界西堆填区

作为非营利团体 Shared Value Initiative Hong Kong 的成员，苏伊士亚洲邀请该组织的代表到访新界西堆填区，了解香港固废资源管理以及推动循环经济的解决方案。



苏州中法环境



澳门自来水

苏州中法环境

2021年6月1日，苏州中法环境组织员工到吴淞江边清理垃圾，保护当地的水资源。

澳门自来水

澳门自来水支持澳门特区政府于2021年7月5日至8月13日期间实行便服日，宣扬节能减排。

上海化工中法

上海化工中法举办绿色骑行、清洁海滩活动，向公众传递低碳出行、爱护环境的信息。



上海化工中法

我们携手各地共建 安全、和谐及共融社区

澳门自来水

澳门自来水与澳门特殊奥运会于2021年6月19日合办特奥游泳赛，倡导伤健共融。



澳门自来水

苏伊士台湾

苏伊士台湾体恤仁武警察，捐赠1,000个防护面罩，为前线防疫人员提供保障。



苏伊士台湾

苏伊士印尼水务运营项目 TLM

苏伊士在印尼水务运营项目 TLM 一如既往地 在穆斯林的节庆古尔邦节向当地社区弱势居民捐献物资。



TLM (印尼)

重庆中法供水

2021年5月18日，重庆中法供水志愿者到社区为有需要的居民提供管道检修服务并协助居民接种新冠疫苗。



重庆中法供水

常州光洁苏伊士

光洁苏伊士在端午节慰问当地社区的独居老人。

光洁苏伊士



浓情端午 与爱同行



江苏中法污水

我们不遗余力 培育下一代

江苏中法污水

江苏中法污水举办开放日活动，让学生从小培养珍惜水资源的意识。

上海化工中法

为了培养更多专业人才，上海化工中法与华东理工大学资源与环境工程学院在2021年5月13日举行校企合作签约仪式。日后双方将就人才培养、科研项目等加强合作。

上海化工中法

上海化工中法为小学生开展趣味环保课，介绍了供水以及污水处理流程，并进行环保知识答题比赛，培养青少年环保意识。



上海化工中法



上海化工中法

礼物和邀请政策

苏伊士制定了“礼物政策”，作为员工是否应提供或接受礼物的参考标准，确保员工行为符合道德规范，避免员工违反反贿赂法，保障良好的企业形象。员工可于“礼物政策”中了解所在单位接受礼物或邀请的最高限额，如不可避免收受或赠送礼品，员工必须先取得管理层和 / 或道德主任的批准，并在单位的礼物或邀请登记册内记录相关礼物或邀请的详细信息，以便追溯。

“礼物政策”中礼物的定义除了包括一些实际的商品外，还包括邀请参与某些活动，如到餐厅用膳、欣赏音乐会、体育赛事以及差旅、技术考察等。



案例

供应商坚持邀请你参观他们位于海边的工厂，而不是离你办公室最近的工厂。供应商主动提出承担你的所有差旅费用。

问题

在这种情况下，你认为应该问自己什么问题？

- A 这次差旅对你的工作的确很重要吗？
- B 你的公司是否应该承担机票费用？
- C 你是否可以参观更近的工厂？
- D 以上选项都不是。

解释说明

- 1 如果供应商邀请你参观他们的工厂，最好不要让他们承担任何机票费用。
- 2 无论如何，你都应该参观最近的工厂。
- 3 无论在何种情况下，都要征求公司管理层和 / 或道德主任的意见。

答案：A、B 和 C



如有任何疑问，请电邮至：

ethics.asia@suez.com



苏伊士组织多项员工活动

成都中法及崇州中法

两家合作公司联合举办运动会，鼓励员工进行体育锻炼。

安悦苏伊士

上海化学工业区安悦苏伊士庆祝公司成立一周年。

澳门自来水

澳门自来水组织员工参观展览，培养爱国主义情操。



上海化工升达

上海化工升达组织安全摄影比赛和安全知识竞赛。

江苏中法水务

江苏中法水务志愿者在全民核酸检测中帮助维持秩序。



重庆中法水务

重庆中法水务举办迷你马拉松比赛。



苏伊士东南亚组织名为“菲律宾达人秀”的网上团建活动，让因疫情而未能见面的同事展示他们在音乐、唱歌、舞蹈方面的才艺。



苏伊士东南亚举办网络会议庆祝穆斯林的开斋节，让员工更了解东南亚的不同文化，并增加员工之间的沟通。占东南亚员工总数 1/3 的穆斯林员工在会上分享了节日的重要性、节庆的方式及食物等。

2021 年上半年苏伊士亚洲地区 职安健绩效回顾

事故发生率 (FR)

实际值

1.82

事故发生率 (FR)

全年目标

< 2.33

事故严重程度 (SR)

实际值

0.06

事故严重程度 (SR)

全年目标

< 0.178



411 / 584

管理层安全巡视完成次数 / 全年目标



5.8 小时

职安健培训人均时数

苏伊士管理人员 健康安全指引

近期，苏伊士发布了“管理人员健康安全指引”，旨在更好地帮助管理人员了解如何通过八大管理举措，提升领导力，让员工积极配合，从而更好地组织和推行健康安全工作。



确保工作环境的
健康与安全



通过管理层
安全巡视促进
改善行动



了解如何促进
积极的行为



员工遵守度



经验教训



公正的
纪律处分

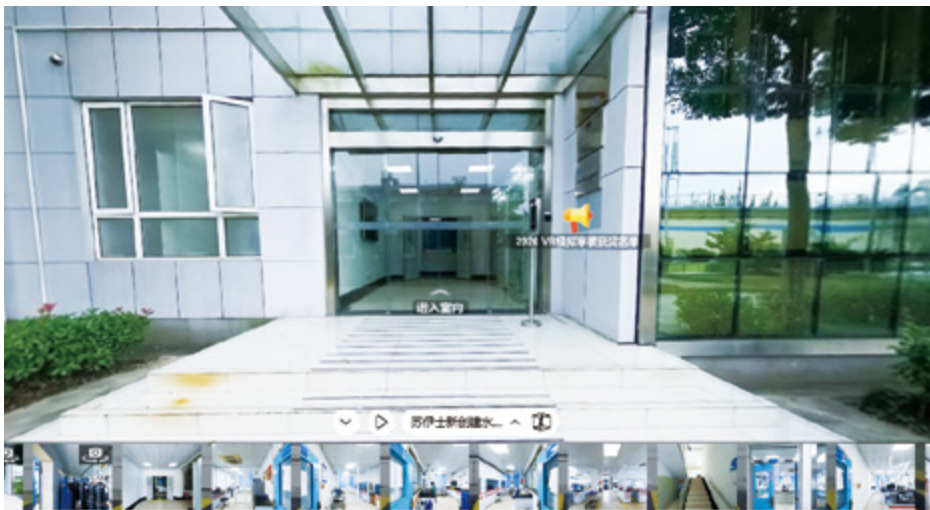


确保承包商
遵守我们的
安全规定



了解如何平衡
安全与其他优
先事项

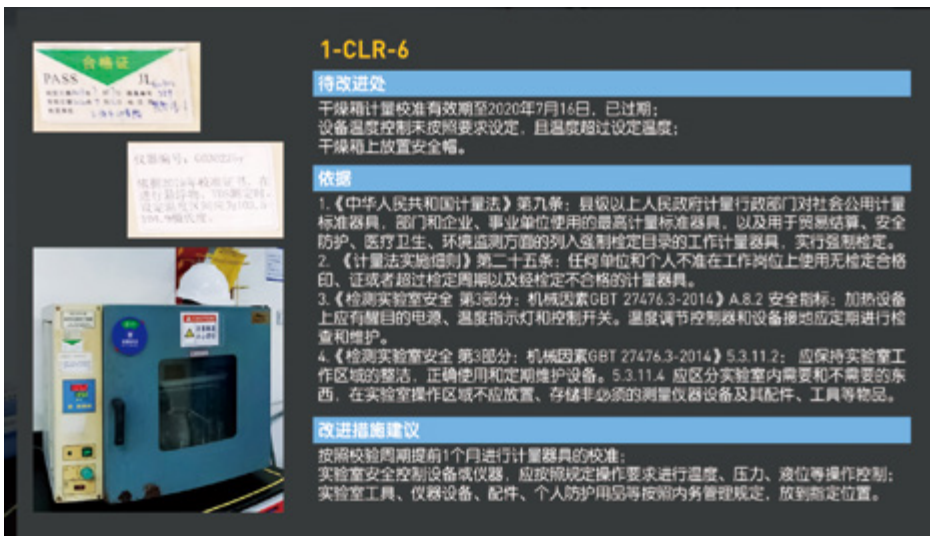
职安健优秀做法分享



水务运营实验室虚拟实景审核

传统的现场职安健审核方式对培训员工有一定的局限性，比如缺少复盘的功能，无法实现让所有相关员工参与审核的全过程。

为了优化传统的审核方式，2020年水务运营推出了实验室虚拟实景（VR）模拟审核，通过对实验室场景布置，制造风险点，邀请所有合作公司相关员工参与网上实验室模拟审核竞赛，在虚拟现实场景中找出不安全情况，并在揭秘版中公布参考答案。以此实现了真实还原现场、审核复盘、全员参与。



实验室虚拟实景审核实现了真实还原现场、审核复盘、全员参与。