



Progress of Water Pollution Prevention and Control in Industrial Parks in China

生态环境部对外合作与交流中心

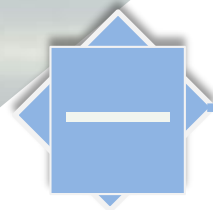
**Foreign Environmental Cooperation Center,
Ministry of Ecology and Environment**

**2023年9月11日
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一、工业园区概况

Basic overview of industrial park

工业园区

Industrial Parks

中国的工业园区又叫开发区，是指国家或地方设立的为吸引投资、推进土地开发利用，促进经济发展划出一定范围，并在其中实施特殊政策和管理的特定区域。

Industrial parks, also known as development zones in China, refer to specific areas set up by the national or local governments to attract investment, promote land development and utilization. Industrial parks can promote economic development, in which specialized policies and management are implemented.

中国开发区一般由园区管理委员会管理，属于政府的派出机构。

Development Zones in China are generally managed by park management committees, which are representative agencies of the government.

按主管部门职能定位，可分为经济技术开发区、高新技术产业开发区、综合保税区、边境贸易区、工业区等。

According to the functional positioning of the competent departments, it can be divided into Economic and Technological Development Zone, High-Tech Industrial Development Zone, Comprehensive Bonded Area, Border Trade Zone, Industrial Zone, etc.

中国工业园区的创立和发展

Development history of industrial parks in China

1978年：改革开放

Reform and opening up

1979年：我国第一个对外开放的工业园区——蛇口工业区
China's first industrial park opened to the outside world : Shekou Industrial Zone

1980年：深圳、珠海、汕头、厦门4个经济特区
Special Economic Zones in Shenzhen, Zhuhai, Shantou and Xiamen

1984年：在总结经济特区发展经验的基础上，开放了一批港口城市，并**兴建我国第一批经济技术开发区**，包括：大连、秦皇岛、宁波、青岛、烟台、湛江、广州、天津、南通、连云港、福州等11个。

Based on the experience gained in the development of special economic zones, a few port cities have been opened. China's first **economic and technological development zones** have been built.

1988年：我国**第一批高技术产业开发区**——北京高新技术产业开发试验区和漕河泾新兴技术开发区。

First batch of **High-Tech Industrial Development Zones** in China : Beijing Hi-Tech Industrial Development Pilot Zone and Caohejing Hi-Tec Park



我国省级以上工业园区数量仍处于快速增长阶段

The number of industrial parks above the provincial level in China is still in the stage of rapid growth

2006

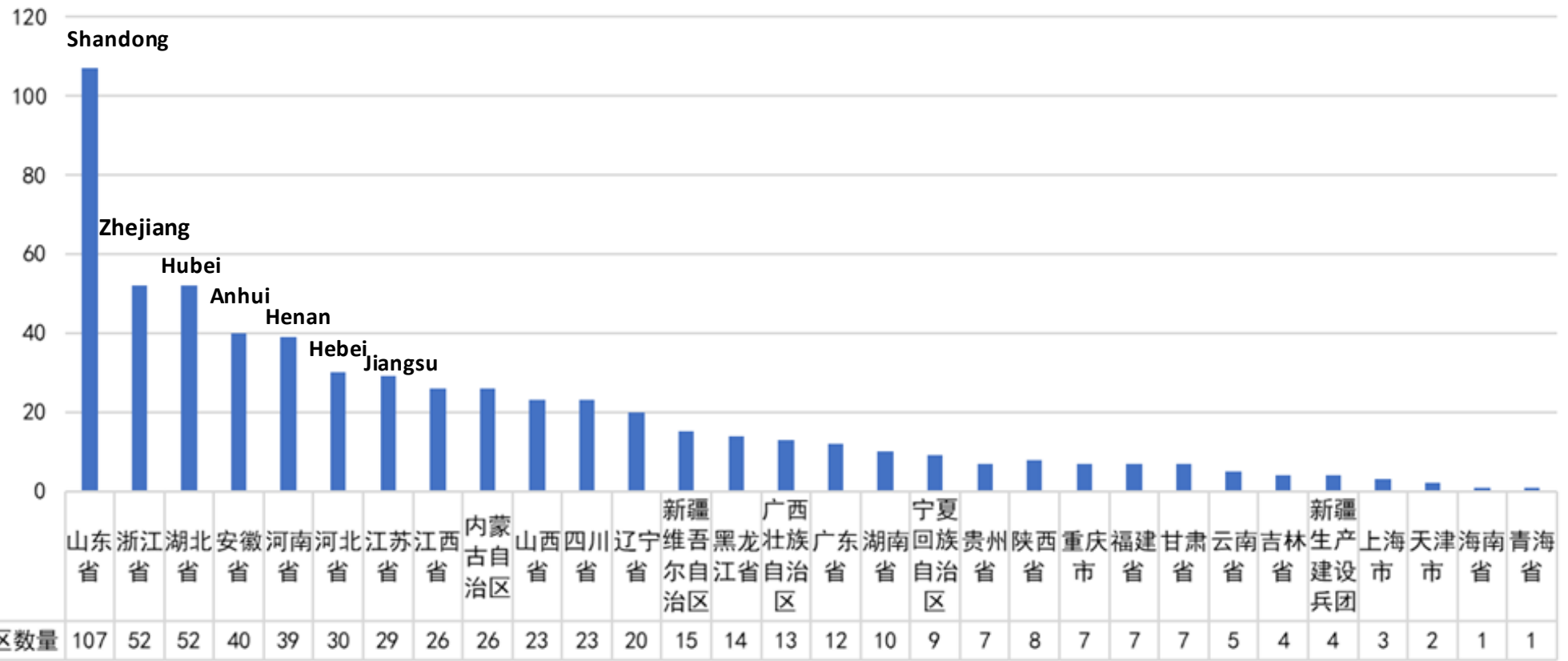
2018

2023

1568

2543

>2800



■ 化工园区数量

The number of chemical industrial parks

工业园区多集中于东部地区，中西部地区相对较少。

Industrial parks are mostly concentrated in the eastern region, with relatively few in the central and western regions.



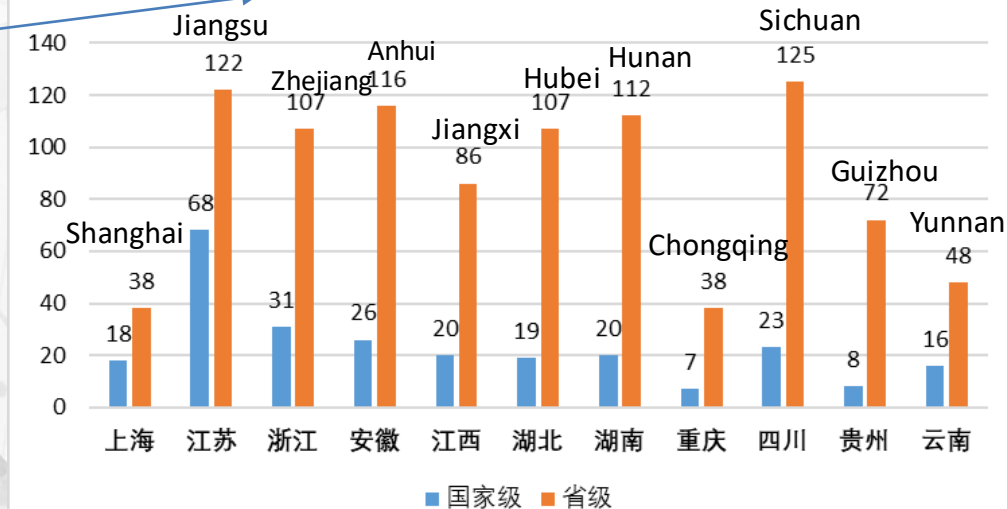
经济技术开发区 ETDZ

Economic and Technological Development Zone

高新技术产业开发区 HTIDZ

High-Tech Industrial Development Zone

长江经济带国家级和省级工业园区数量



Number of national and provincial industrial parks in the Yangtze River Economic Zone

长江经济带共有1277家工业园区，其中，国家级工业园区共256家，省级工业园区共971家。

There are a total of 1,277 industrial parks in the Yangtze River Economic Zone, of which 256 are state-level industrial parks and 971 are provincial-level industrial parks.



● 我国加强化工产业结构调整，全面开展化工园区认定工作

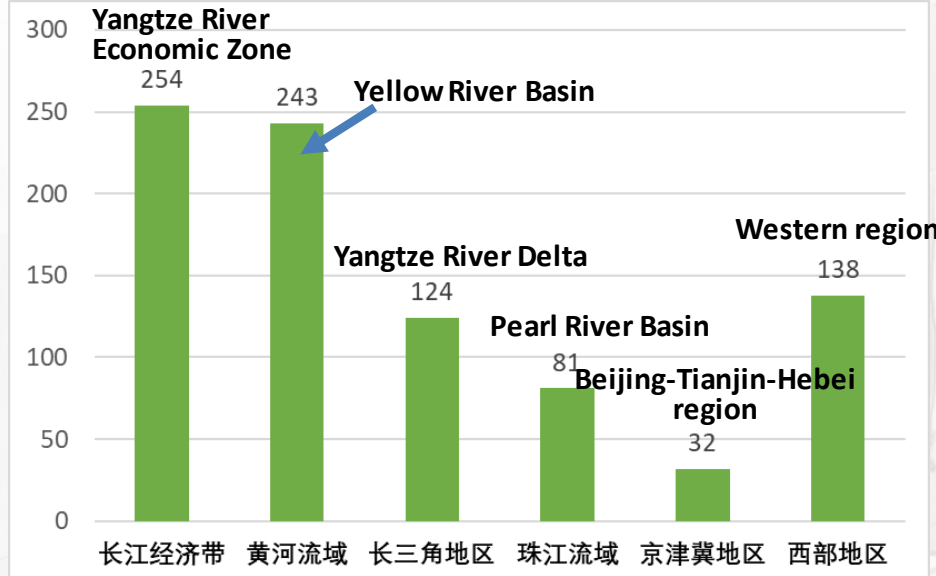
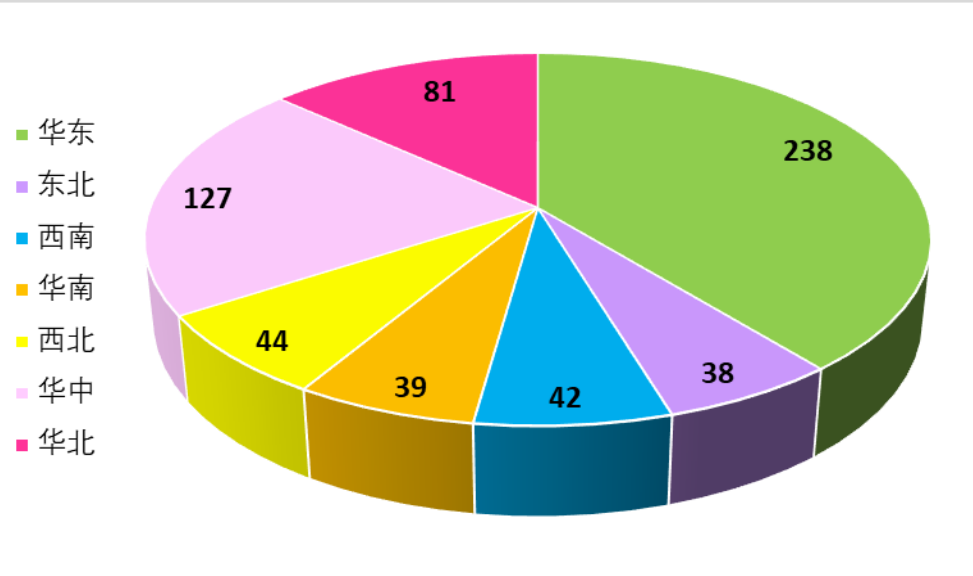
● 截至2022年年底，全国化工园区596家，其中已通过省级人民政府或其授权机构认定的581家。

● China has strengthened the structural adjustment of the chemical industry and comprehensively carried out the identification of chemical industrial parks.

● By the end of 2022, there are 596 chemical industrial parks in China. Among them, 581 have been recognized by the government of province or its authorized agencies.

The number of chemical industrial parks

- East China
- Northeast China
- Southwest China
- South China
- Northwest China
- Central China
- North China



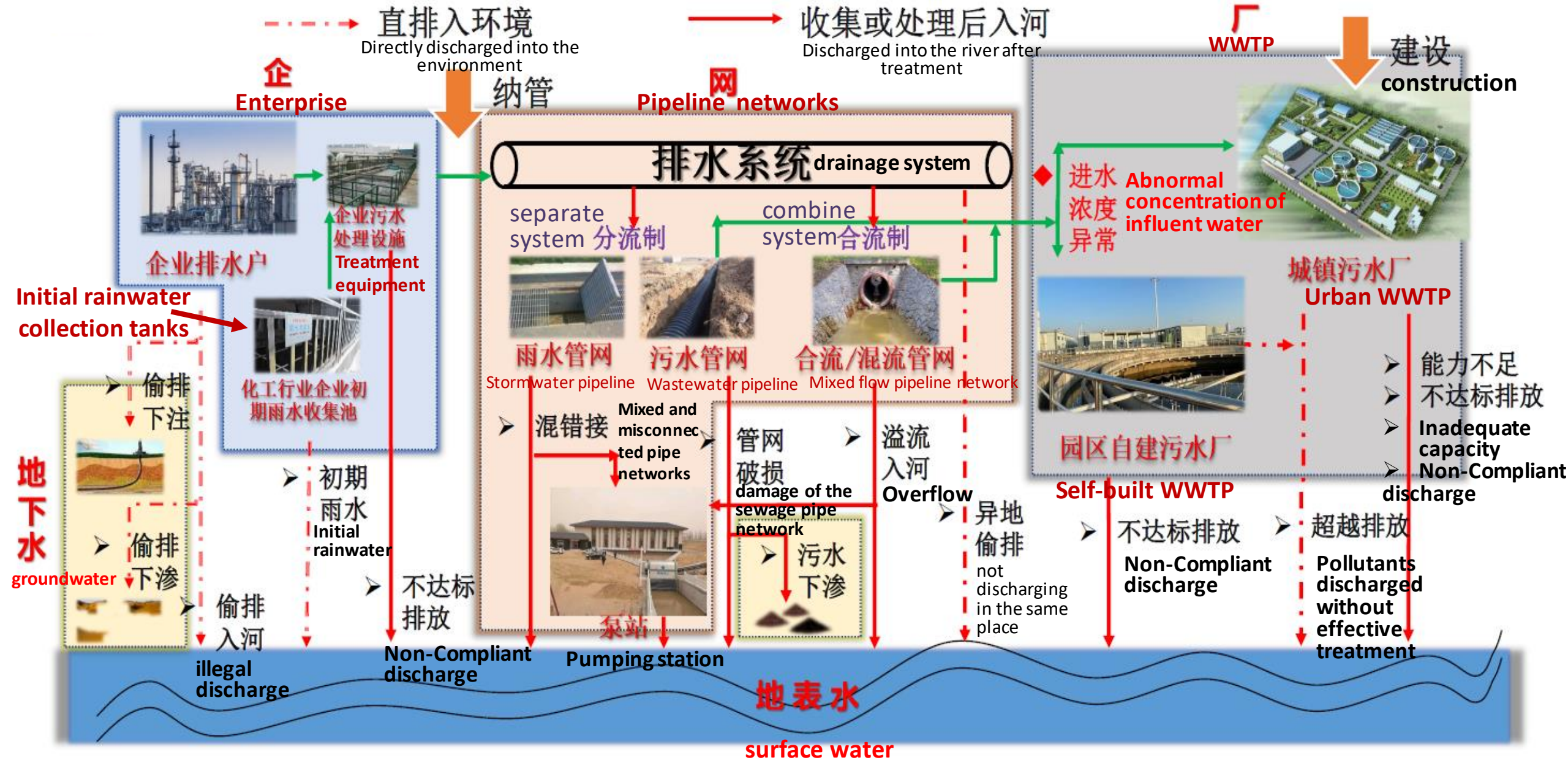


二、工业园区水污染防治进展

Progress of water pollution prevention and control in industrial parks

工业园区水污染物产排全过程

The whole process of production and discharge of water pollutants in industrial parks



工业园区水环境管理政策

Policy on water environment management in industrial parks

《水污染防治行动计划》（水十条）与新修订的《水污染防治法》

Action Plan for Prevention and Control of Water Pollution,
and Law of the People's Republic of China on Prevention and Control of Water Pollution

强化工业园区“预处理+集中处理”的两级防控体系，推动全国2000多家省级工业园区全部建成污水集中处理设施

Strengthening the two-tier prevention and control system of “pre-treatment + centralized treatment” in industrial parks and promoting the completion of centralized WWT facilities in more than 2,000 provincial industrial parks.

- 工业集聚区按规定**建成污水集中处理设施，并安装自动在线监控装置。**
- **Build centralized sewage treatment facilities and install automatic online monitoring devices.**

水十条硬任务



- 排放工业废水的企业应当采取有效措施，**收集和处理产生的全部废水，防止污染环境。**含有毒有害水污染物的工业废水应当**分类收集和处理，不得稀释排放。**
- Enterprises to take effective measures to collect and treat wastewater generated.
- Toxic and hazardous water pollutants of industrial wastewater should be categorized collection and treatment not diluted discharge.

水污染防治法



- 向污水集中处理设施排放工业废水的，应当按照国家有关规定进行**预处理**，达到集中处理设施处理工艺要求后方可排放。
- Industrial wastewater discharged to centralized sewage treatment facilities shall be pre-treated in accordance with relevant state regulations and discharged after meeting the standards.

水污染防治法

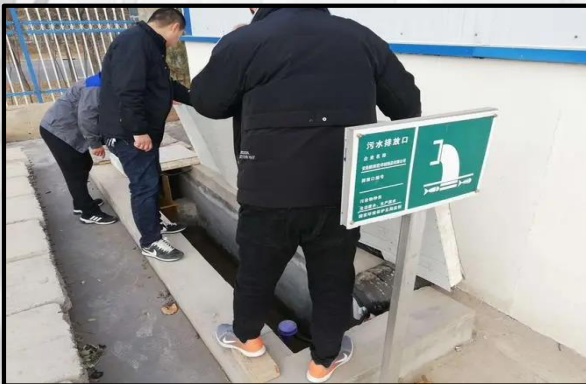


长江经济带工业园区污水处理设施整治、水污染整治专项行动

Special Action on Remediation of WWT Facilities and Water Pollution Prevention and Control in Industrial Parks in the Yangtze River Economic Zone

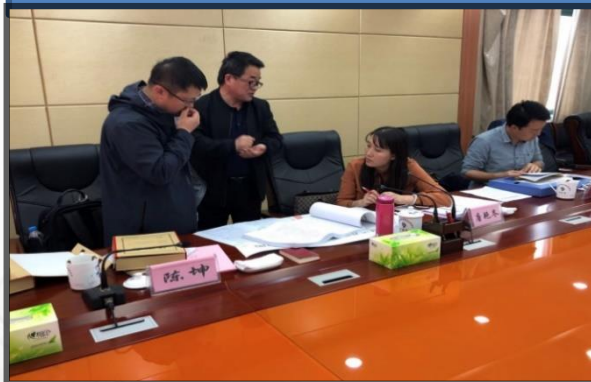
污水集中收集

Centralized wastewater collection



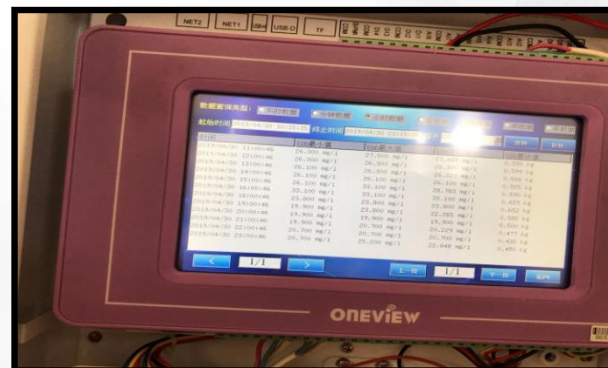
管网泄漏溢流

Pipeline network leakage and overflow



污水厂超标排放

Excessive discharges from WWTP



风险防控

Risk prevention and control



浙江“工业园区污水零直排”建设

“Zero wastewater discharge in industrial park” in Zhejiang

生产、生活污水: 统一收集处理达标排放

Industrial and domestic sewage:

centralized collection and treatment to meet the standards and then discharge

雨水管网: 晴天不排水, 雨天无污水

Rainwater pipe network:

no drainage in sunny days, no sewage in rainy days



重点行业废水输送明管化改造

“make underground pipe network visible”

- Sewage Pipes
- Manholes
- sewage pumping station

- ◆ 污水管
- ◆ 检查井
- ◆ 污水泵站

形成清晰的“源-网-厂-口-河”治理体系

A clear "source-network-plant-outlet-river" governance system

管网功能性结构性问题排查
Investigation of functional structural problems in the pipe network



多功能管网机器人 管道潜望镜
Multi-functional pipe network robot pipe periscope

明管化标识化改造
Visible pipe



管网明管化和标识化

Labeled the pipe and make it visible

- ◆ 看得见
- ◆ 管得好
- ◆ 易溯源

- visible
- Manageable
- traceable

制定评估验收规程

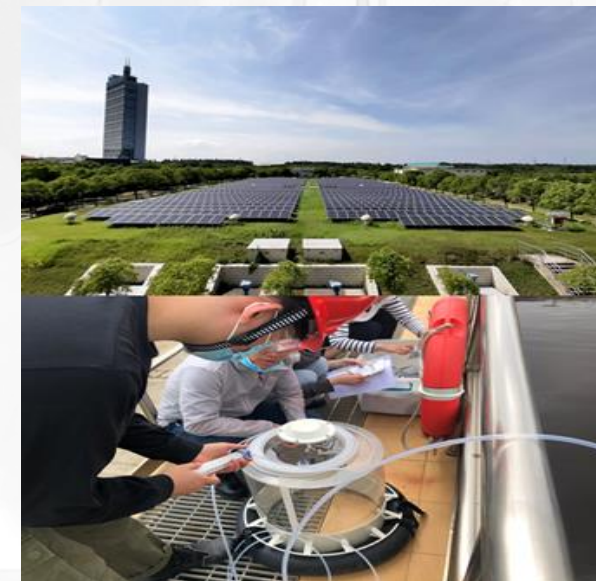
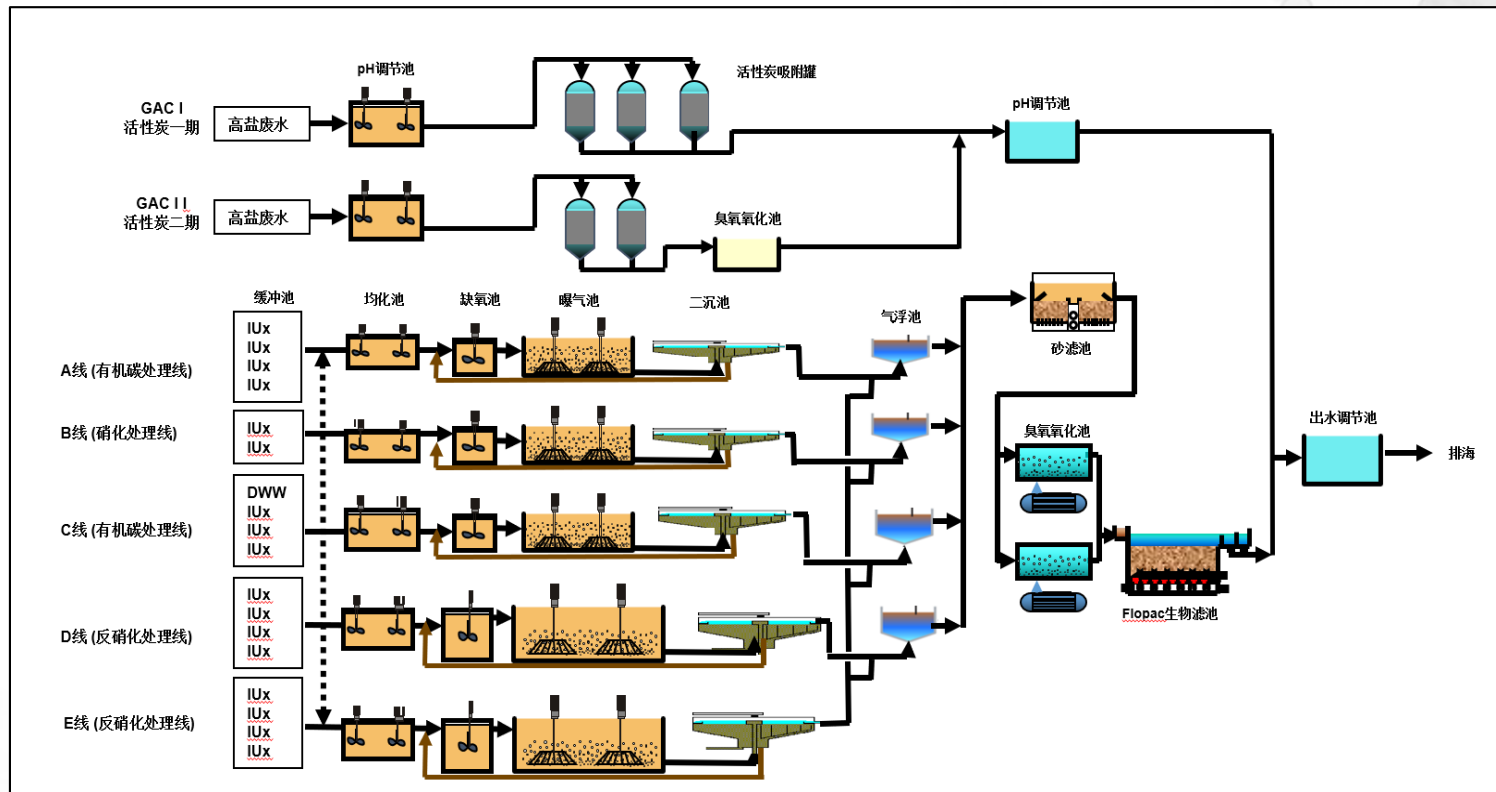
Develop evaluation and acceptance procedures



第三方评估
Third party assessment

上海化学工业区 现代化治理体系

Modernized governance system in Shanghai
Chemical Industry Park



江苏太仓港经开区化工园区环境综合治理

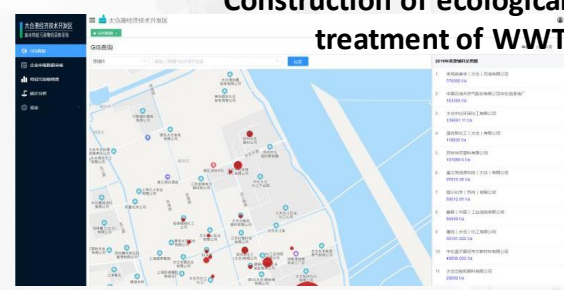
Comprehensive environmental management of chemical industrial park in Jiangsu Taicang Port Economic Development Zone

建设绿色化工园区，提升综合治理能力
Build a green chemical industrial park and improve the comprehensive treatment capacity



一企一管输送，如超标监控系统将自动切断
废水管道，废水返回原企业重新处理

One pipe for one enterprise, monitoring system will automatic online monitoring will automatically cut off the gate of the pipeline network, and wastewater will be returned to the enterprise for re-treatment.



构建特征污染物名录库，
加强规范化管控

Construction of a list of
characteristic pollutants

山东济宁高新区采矿塌陷区变美丽湿地

Jining Hi-Tech Zone in Shandong turns mining subsidence area into beautiful wetland





下一步工作

Next step work plan

提高三个效能

Improvement of three effectiveness

提高工业废水收集效能

Improvement of industrial wastewater collection effectiveness

- 化工废水专管化、明管化输送
Make the chemical industrial wastewater pipe specialized and visible
- 加强管网缺陷排查
Strengthen the pipeline network defect detection
- 初期雨水妥善收集处理
Proper collection and treatment of initial rainwater

提高污水集中处理设施运行效能

Improvement of operational effectiveness of centralized wastewater treatment facilities

- 污水集中处理设施工艺升级改造
Promote the upgrading of centralized sewage treatment facilities
- 加强污水集中处理与上游企业预处理的衔接
Strengthening the connection between centralized sewage treatment and pre-treatment of upstream enterprises
- 加强污水、污泥资源再生
Enhancing the recycling of sewage and sludge resources

提高园区风险管控效能

Improvement of effectiveness of risk management in industrial park

- 智慧化、信息化手段提升人防+技防能力
Fully utilize the Intelligent, information-based means
- 加强毒性物质和新污染物管控
Strengthening control of toxic substances and emerging pollutants
- 提升环境应急和长效管控能力
Enhancement of environmental emergency response and long-term control capacity



持续开展工业园区水污染防治优秀案例征集活动

Collection of best cases of water pollution prevention and control in industrial parks

生态环境部对外合作与交流中心

环合作函〔2023〕204号

关于征集工业园区水污染防治典型案例的函

各有关单位：

为深入贯彻党的二十大精神，推动落实《中共中央 国务院关于深入打好污染防治攻坚战的意见》《深入打好长江保护修复攻坚战行动方案》《黄河生态保护治理攻坚战行动方案》等文件要求，推进生态文明和服务美丽中国建设，我中心拟联合多家合作伙伴共同开展工业园区水污染防治典型案例征集活动，集成工业园区主动创新实践成果和经验，突出治理成效和先进技术路线，为全国工业园区开展水污染防治工作提供借鉴参考。具体要求如下：

一、征集范围和基本条件

(一) 全国省级及以上工业园区，以及边界范围明确且设立专职领导机构和相关工作机构的市县级工业园区。

(二) 园区及园内企业近三年未出现重大环境污染事故和群体事件，未被各级生态环境管理部门通报发生环境违法案件。

附件4

典型案例征集支持单位名单

(排名不分先后)

1. 长江流域生态环境监督管理局
2. 黄河流域生态环境监督管理局
3. 淮河流域生态环境监督管理局
4. 海河流域北海海域生态环境监督管理局
5. 珠江流域南海海域生态环境监督管理局
6. 松辽流域生态环境监督管理局
7. 太湖流域东海海域生态环境监督管理局
8. 中国环境科学研究院
9. 生态环境部南京环境科学研究所
10. 生态环境部华南环境科学研究所
11. 生态环境部环境规划院
12. 生态环境部环境工程评估中心
13. 中国环境科学学会
14. 中华环保联合会
15. 中国石油和化学工业联合会化工园区工作委员会
16. 全国工商联环境商会
17. 江苏省环保集团有限公司
18. 广西壮族自治区环境保护科学研究院

- **基础设施现代化**
Modernization of infrastructure
- **污水收集处理精细化**
Refinement of wastewater collection and treatment
- **环境管理数字化**
Digitalization of environmental management
- **风险防控信息化**
Informatization of risk prevention and control



经度：113.253219
纬度：29.486894
地址：湖南省岳阳市云溪区扬帆大道8号岳阳金瀚高新技术股份有限公司
时间：2021-08-31 06:59:58
备注：环保管家

感谢聆听

Thanks for listening!



生态环境部对外合作与交流中心公众号
FECO Official Wechat Account



工业园区环境管理公众微信号

工业园区环境管理公众账号c
专业的国内外工业园区环境信息平台
Environmental management of industrial parks
Official Wechat Account