

# Heavy Pollution Source Information Disclosure in 2018

## Sewage treatment plant may become a source of pollution



行动改变未来

SIP Lvse Jiangnan PECC

February 12, 2019

2018年重控污染源信息公开

## 污水处理厂或成为致污源头



行动改变未来

苏州工业园区绿色江南公众环境关注中心

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## ***Sewage treatment plant may become a source of pollution***

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### **1. Abstract**

Laws and regulations related to environmental information have been promulgated in recent years, demonstrating the importance and necessity of information disclosure in environmental protection. To promote public participation in the supervision of corporate environmental behavior, PECC collects corporate environmental information and data released by environmental protection departments and works with relevant government agencies and companies to promote corporate green transformation and realize corporate green production.

In 2018, PECC conducted real-time monitoring of the online monitoring data information of 13,567 heavily controlled pollution sources across the country and reported to the local environmental protection bureau on Sina Weibo and the 12369 reporting platform for companies with the excessive discharge of pollutants and abnormal data. Some provincial and municipal environmental protection bureaus have established good and close cooperative relations to promote local environmental protection departments to investigate, rectify and punish companies that exceed the emission standards reported by PECC's official Weibo or 12369.

In 2018, PECC reported 1,579 companies with online monitoring data exceeding

the standard to the local environmental protection department through the Weibo platform and telephone. Following PECC's orderly follow-up, 1133 environmental protection bureaus from all over the country received positive responses, of which 191 illegal emission companies were ordered by the environmental protection department to rectify, administratively penalize, and file a case for investigation.

In the list of major pollutant discharge units in the first quarter released by the Ministry of Ecology and Environment in 2018, nearly half of them are urban sewage treatment plants that are illegally discharging pollutants. The spokesperson of the Ministry of Ecology and Environment stated that "Urban sewage treatment plants are important basic livelihood factories, and sewage treatment plants must not be allowed to become a source of pollution for the people to renovate." Part of the sewage treatment plant is below the limit because both domestic sewage and industrial wastewater must be discharged into natural water bodies after the sewage leaves the site. Sewage treatment plants are an indispensable existence for people's lives and production. Since the sewage treatment plant accepts domestic sewage and industrial sewage at the same time, it has a certain degree of complexity. When the sewage treatment plant discharges exceeding the standard, it will have a serious impact on water bodies, humans, and the environment.

In 2018, PECC reported a total of 434 sewage treatment plants with excessive discharge, accounting for about 27.5% of the annual report to the prime minister (1579). This is the first time that PECC has carried out systematic statistics and analysis of online monitoring data of heavy pollution sources (sewage treatment plants) across the country in 2018.

## **2. Reports and responses of sewage treatment plants nationwide**

### **2.1 Report volume and response rate in various provinces and cities across the country**

In terms of the number of reports, East China (Shanghai, Jiangsu, Zhejiang, Anhui,

Fujian, Shandong, Jiangxi) wastewater treatment plants with excessive discharges were reported up to 268 times; followed by North China (Hebei, Tianjin, Inner Mongolia, Beijing, Shaanxi) 66 times; Southwest China (Sichuan) only once. From the perspective of response rate, the national response rate is generally above 50%, but there are also individual provinces and cities with a response rate of 0, such as Henan, Heilongjiang, Yunnan, Gansu, and Qinghai. Regardless of the total number of sewage treatment plants in all provinces across the country, just comparing the responses of the environmental protection departments of various provinces and cities, there has been a phenomenon of unevenness. This not only reflects the importance of local governments on environmental protection but also reflects the degree of information disclosure by environmental protection departments.

With the continuous increase in public participation in environmental protection, the channels for supervision and reporting are no longer limited to the interaction of government affairs microblogs. The 12369 reporting platform also facilitates public participation, and the number of replies is much higher than the number of government affairs microblogs. Although there are reports on the official housing and government affairs Weibo rankings every year, in anticipation of the increase in information disclosure, the feedback of environmental issues on government affairs Weibo is not mandatory, and many government affairs Weibo operations still have big problems; and 12369 is based on Zhonghua the Ministry of Environmental Protection of the People's Republic of China established the "Environmental Reporting Hotline Work Management Measures". Under the premise of legal compulsory force, the completion of 12369 has become the content of the performance evaluation of the environmental protection department.

## **2.2 Distribution of representative pollutants in sewage treatment plants**

According to the analysis of pollutants discharged from the sewage treatment plant in the 2018 annual PECC giant white exceeding the standard, in the report record of the water quality exceeding the standard, the over-standard factors are mainly

COD, ammonia nitrogen, and total phosphorus. COD is often used as an indicator to measure the amount of organic matter in the water. The higher the COD, the more serious the pollution of the water body by organic matter. When COD is too high, it enters the water body, breaking the balance of the water body, not only harming the organisms in the water body, but also through the enrichment of the food chain, and finally enters the human body, causing slow-moving poisoning. The discharge of nitrogen and phosphorus compounds will lead to eutrophication of water bodies.

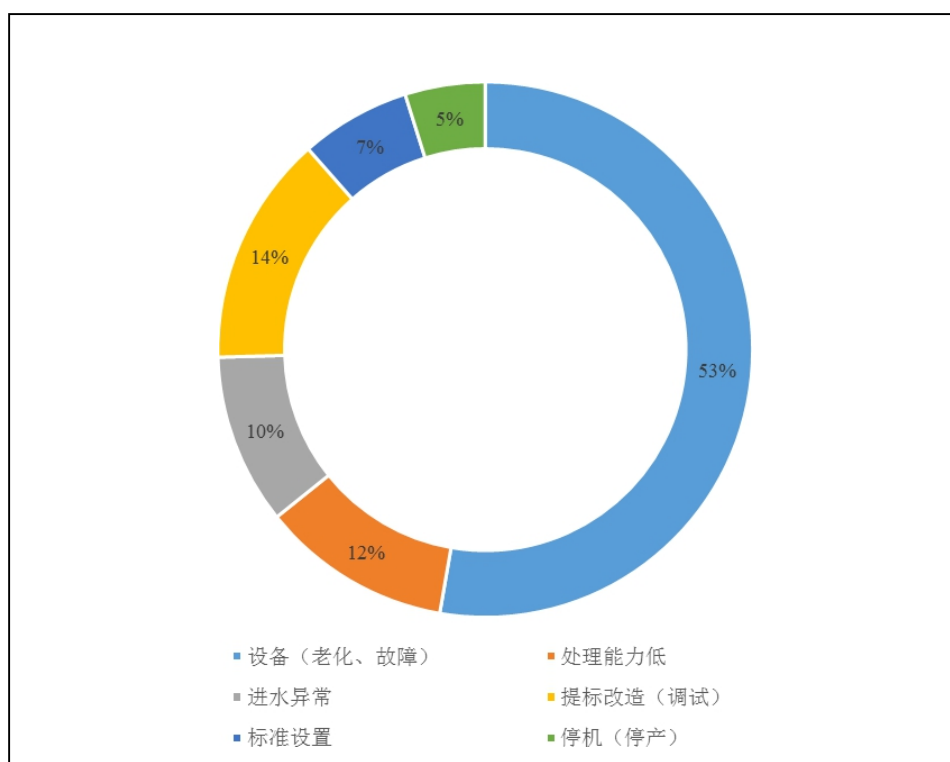
Causes of excessive COD in the effluent of the sewage treatment plant: too high sludge load, low sludge concentration, insufficient aeration, and treatment overload operation. The frequent excesses of total nitrogen and total phosphorus indicate that in the secondary treatment of sewage treatment plants, the stability of the process and process for nitrogen and phosphorus removal is insufficient, and important parameters of the process of nitrogen and phosphorus removal need to be strictly controlled.

The sewage treated by the sewage treatment plant generally includes domestic sewage and industrial sewage. The heavy metals and persistent organic matter contained therein cannot be naturally degraded, resulting in an enrichment effect, which will cause long-term damage to surface water and soil, and cause great damage to the environment and human health. Hazard and impact. As the last line of defense for pollution control, the sewage treatment plant, if the discharge exceeds the standard, where should the water body be safe? Sewage treatment plants cannot be porters of sewage, so the long-term management of sewage treatment plants must be strengthened.

### **2.3 Environmental protection department response analysis**

according to the response of the environmental protection department in 2018, the reasons for exceeding the standard are divided into equipment (faults, aging), low processing capacity, abnormal water inflow, upgrading and transformation (commissioning), platform standard settings, and downtime, as shown in Figure 1.

Figure 1 Classification of Excess Reasons



According to the above figure, the main factor leading to excessive discharge of sewage in the event of equipment problems is the upgrading of the sewage treatment process (commissioning) and insufficient sewage treatment capacity. Let's explain one by one below.

#### (1) Equipment (aging, failure)

PECC reported on Shaxian Lanfang Water Co., Ltd. on Weibo. Its pH data showed continuous excessive discharge. Random Shaxian Environmental Protection Bureau replied on the 12369 network platform that it had conducted an on-site investigation of the company.



**答复内容**


办理单位： 沙县环境保护局

答复内容： 杨杨（绿色江南）：您好。我局于2018年7月6日依法受理您在12369环保举报平台（举报编号：180706350427031575）反映“沙县蓝芳水务有限公司2018年6月26日至28日期间，在福建省企业自行监测信息公开平台上数据显示，其pH显示连续超标。”悉，经调查核实，现将处理情况告知如下：沙县蓝芳水务有限公司自行监测在线监控委托由聚光科技运营。经查看该公司日常中控运行记录台账，该公司6月22日发现出水PH数据异常，经分析室自行取样检测，出水PH数据人工检测正常，因判断在线PH计故障造成数据异常并通知聚光科技检修。聚光科技现场检查发现PH计电极出现故障，于6月29日采购更换后，出水在线PH数据正常，该期间PH数据异常情况聚光科技已向三明市环保局报备。关于沙县蓝芳水务有限公司废水日常处理情况，我局环境监测站定期对其取样检测，根据监测报告结果显示，出水PH、COD等各项指标均能达标排放。接到投诉后，我局执法人员再次对其取样监测，其监测结果出水各项指标均达标。感谢您对环保工作的关心和支持。附：沙县蓝芳水务有限公司近期受检的环境监测报告（沙环测字〔2018〕159号）、（沙环测字〔2018〕164号）沙县环境保护局 2018年7月24日


## (2) Upgrading and reforming

PECC reported on the Wusu City Sewage Treatment Plant on Weibo. Its ammonia nitrogen data showed continuous excessive discharge. The Wusu City Environmental Supervision Brigade replied on the 12369 platform that it had conducted an on-site investigation of the company and showed that the excess was due to the original treatment process of the plant there is no ammonia nitrogen treatment. Currently, the plant has been upgraded and is scheduled to be put into operation in December 2018.



 **PECC-LN**  
29分钟前 来自 微博 weibo.com

乌苏市污水处理厂，在新疆省企业自行监测信息公开平台上数据显示，其氨氮数据连续多日超标排放。请 @生态环境部 关注，请 @新疆环境保护厅 给予说明。@绿色江南公众环境关注中心 @蔚蓝地图 @PECC-LIJ @PECC-CB @PECC-YWJ @PECC-WK @PECC-ICY



阅读 205 推广 | 1 | 1 | 赞

**答复内容**

办理单位： 乌苏市环境监察大队

答复内容： 投诉人您好！您于2018年7月10日反映：“乌苏市污水处理厂，在新疆省企业自行监测信息公开平台上数据显示，其氨氮数据连续多日超标排放。”我局已受理。乌苏市污水处理厂位于八十四户乡庙村，距城区5.5公里，建设用地3万平方米，该项目于1999年设计，设计规模为3.0万吨/日，处理工艺采用绝氧—好氧活性污泥技术，设计出水达到二级标准。由于当时设计中无氨氮处理工艺，导致出水浓度超标。根据《乌苏市水污染防治工作实施方案》（乌政办〔2017〕222号）内容，乌苏市人民政府已要求乌苏市污水处理厂进行提标改造，新增脱氮处理工艺。目前该工程已完成可研修编、立项、地勘、征地、高压电缆线改造、场地平整、环评修编、设计及图审工作，现已发布土建施工招标公告，计划于2018年12月投入运行。提标改造完成后，将能满足处理需求，出水达到《城镇污水处理厂污染物排放标准》（GB18918-2002）一级A标准，实现达标排放。感谢您对环境保护工作的支持。欢迎您继续关注，发现环境污染问题及时向环保部门反映！

(3) The treatment capacity of the sewage treatment plant is low

PECC reported on the Xinhe County Sewage Treatment Plant on Weibo, and its ammonia nitrogen data showed continuous excessive discharge. Then the Xinhe County Environmental Supervision Brigade replied on the 12369 network platform that it had conducted an on-site investigation of the company, and it was found that the excess standard was the generator controller of the plant. Small capacity and overloaded operation of the second-stage sewage treatment plant.

 **PECC-LN**  
30秒前 来自 微博 weibo.com

新和县供排水公司，在新疆省企业自行监测信息公开平台上数据显示，其氨氮数据连续多日超标排放。请 @生态环境部 关注，请 @新疆环境保护厅 给予说明。@绿色江南公众环境关注中心 @蔚蓝地图 @PECC-LIJ @PECC-CB @PECC-YWJ @PECC-WK @PECC-ICY



推广 | 转发 | 评论 | 赞

#### 答复内容

办理单位： 新和县环境监察大队

答复内容： 举报人刘先生您好！您反映“新和县污水处理厂，近日氨氮连续多日超标排放”的问题，经新和县环保局现场检查情况属实，情况如下：2018年6月23日起至2018年7月10日期间，新和县污水处理厂一期由于发电机控制器容量过小发电机不能正常运转，导致一期氧化沟含氧量不足活性污泥降低，二期污水处理厂超负荷运转，截止2018年7月10日污水处理厂一期设备已检修完毕，正在对一期进行菌种培养。在此期间：污水处理厂向我局先后递交了《新和县环境污染治理设施停运申请表》、《污染源企业数据超标情况说明》、《阿克苏重点企业污染源在线自动监控设施异常情况报告》，我局核实情况属实，详情请见附件，如有疑问可直接联系我局 座机：0997-8126806、0997-8125280，或直接联系我局环境监察大队大队长 党晓林同志 15999226915。再次感谢您对环保事业的支持！

#### (4) Abnormal water ingress

PECC reported to Hubei Dawu Keliang Environmental Protection Technology Co., Ltd. on Weibo. Its COD data showed intermittent emissions exceeding the standard. Random Dawu County Environmental Protection Bureau replied on the 12369 platform that it had conducted an on-site investigation of the company. Unidentified industrial wastewater entered the plant.



The image shows a screenshot of a Weibo post from the account PECCNL. The post text reads: "湖北大悟科亮环保科技有限公司，在湖北省企业自行监测信息公开平台上数据显示，其废水总排出口 CODcr间断性超标排放，请 @生态环境部 关注，请 @湖北环保 @孝感市环境保护局 给予说明 @绿色江南公众环境关注中心 @蔚蓝地图# 蔚蓝地图# @PECC-LIJ @PECC-CB @PECC-LN @PECC-YWJ @PECC-YCY @PECC\_DD @PECC\_xdx 收起全文 ^" Below the text are three small screenshots of monitoring data tables and a bar chart showing CODcr levels. The interface includes interaction buttons for '推广', '转发', '评论', and '赞'.

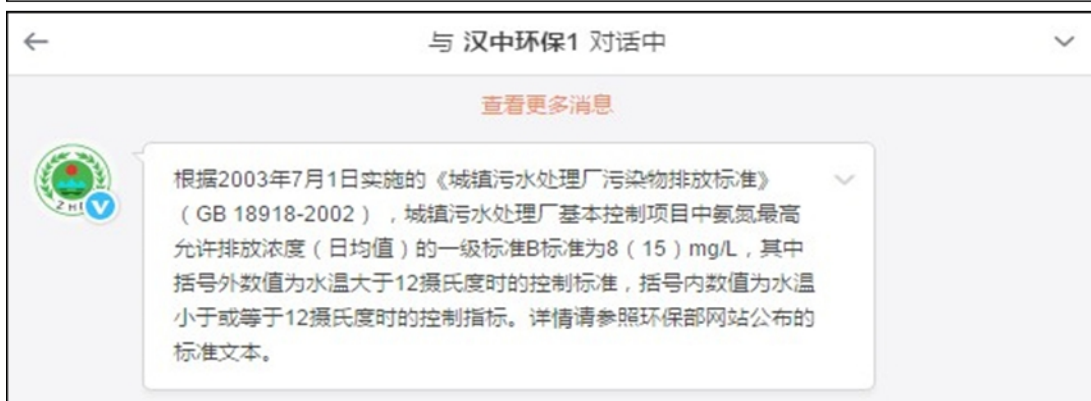
#### 答复内容

办理单位： 大悟县环境保护局

答复内容： 举报人您好！您反映的问题，经大悟县环保局对湖北大悟科亮环保科技有限公司现场检查，发现存在在线数据超标等违法问题，大悟县环保局已及时处理，经检查发现该企业9月30日有不明工业来水超出该企业设计接纳来水最大值，导致污水处理设施无法处理该股来水，从而使该企业CODcr出水10月1-3日间隙式超标；2018年10月19日13:00-18:00左右，有不明工业来水进入该厂，导致该企业CODcr10月20日00:00-10:00超标；该企业将相关情况于2018年10月8日、10月20日以书面形式报告给孝感市环保局和大悟县环保局。该企业在发现不明工业来水后，迅速采取应急措施，降低处理水量，同时加大风机曝气量和药剂投加重，从工艺上控制出水污水污染因子指标。感谢您对环保事业的支持！

#### (5) Standard setting

PECC reported on the Hanzhong Municipal Sewage Treatment Plant on Weibo, and its ammonia nitrogen data showed that the discharge exceeded the standard continuously, and then the Han environmental protection responded to the plant to implement the Level B standard in a private message on Weibo.



#### (6) Shutdown (stop production)

PECC reported on Longyou Huashui Water Development Co., Ltd. on Weibo. Its total phosphorus data showed continuous discharge exceeding the standard. Random Longyou County Environmental Protection Bureau replied on the 12369 platform that it had conducted an on-site investigation of the company, showing that the excess was due to the suspension period On-site test quality control results.



**答复内容**

办理单位： 龙游县环境保护局

答复内容： 您好，您反映的问题经我局调查核实后，现答复如下：龙游华水水业发展有限公司(原龙游县城市污水处理有限公司)设备（COD、PH、NH3-N、TNP）因强制检定停运四天（2018年10月17日~20日），停运期间有数据超标，均为现场测试质控造成，设备停运情况已于2018年10月16日报环保局备案。感谢您的来信！

According to the response of the environmental protection department, we found that the environmental protection department's handling of enterprises that exceed the standard is different. There are administrative penalties, case investigations, rectifications, and follow-up. Among them, the proportions of filing investigations and ordering rectification are relatively high, each accounting for 48% and 23% of the sewage treatment plants reporting excessive discharge in PECC in 2018. This shows that all regions are paying more and more attention to environmental protection issues, and replies also pay more attention to results and are like responsibility transfer. The content to be followed up is no longer in the majority, accounting for only 11%. Let's explain one by one below.

(1) Filing a case for investigation

PECC reported on the Huangjiabu Binhai Sewage Treatment Plant on Weibo. Its COD data showed continuous excessive discharge. Then the Yuyao Environmental Protection Bureau replied on the 12369 platform that it had sampled the wastewater from the company's discharge outlet, which indeed exceeded the relevant discharge standards. The company filed a case for investigation.



**答复内容**

办理单位： 余姚市环境保护局

答复内容： 举报人您好！您反映的问题，经我局第三环保所调处，现答复如下：2018年1月，宁波黄家埠滨海污水处理有限公司自动监控数据显示COD有超标现象，我局第一时间对该企业相关情况进行了采样督查，同时要求企业做好废水检测和自查工作。2018年1月15日，我局执法人员又对宁波黄家埠滨海污水处理有限公司进行了现场执法检查，并对排放口废水进行采样，经余姚市环境保护监测站检测，超过了相关排放标准。2018年1月29日，余姚市环保局根据检测结果，对该公司进行立案查处。感谢您对环保事业的支持！

## (2) Administrative penalty

PECC reported on Hong'an Yintaida Water Co., Ltd. on Weibo. Its ammonia nitrogen data showed intermittent discharges of ammonia nitrogen. Then the Hong'an County Environmental Protection Bureau replied on the 12369 platform that its ammonia nitrogen did exceed the discharge standard and issued an administrative penalty to the company in advance (hearing) Notification.




**答复内容**

办理单位： 红安县环境保护局


答复内容： 刘浏（绿色江南）同志，你好！接到你的信访件后，我局立即通知相关执法人员赶赴你所述现场进行调查处理，现将相关情况回复如下：  
 一、信访人反映的事项 信访件中反映的主要问题：反映红安县城区污水处理厂在湖北省污染源环境信息发布系统显示，其氨氮数据间断性超标排放。二、被反映对象基本情况 红安县城区污水处理厂全称红安县银泰达水务有限公司，一期工程于2010年7月建成投入使用，二期工程于2017年5月建成投入使用，日处理量5.2万吨。三、现场调查核实情况 2018年7月10日我局接到此投诉件的前后，我局执法人员已多次前往红安银泰达水务有限公司进行现场检查，因为红安银泰达水务有限公司在此期间分别跟黄冈市环保局和红安县环保局书面报告设备故障和申请维修，且平台数据日均值和小时值均有超标现象，我局于7月12日对红安银泰达水务有限公司进行监管项监测，其氨氮值为11.1mg/L，超过国家排放标准值的0.39倍，投诉人反映的问题属实。四、处理情况、整改进展 我局已对红安银泰达水务有限公司下达红安县环境保护局责令改正违法行为决定书（红环改[2018]045号）、红安县环境保护局行政处罚事先（听证）告知书（红环罚告[2018]045号），该公司要求听证，目前正在准备举行听证会。红安县环境保护局 2018年7月23日

### (3) Rectification

PECC reported on the Fenghua Municipal Wastewater Treatment Plant on Weibo. Its total nitrogen data showed continuous excessive discharge. Then the Fenghua District Environmental Protection Bureau replied on the 12369 platform that its water samples were indeed exceeded and issued a rectification decision.

 **PECC-YWJ**  
20秒前 来自 微博 weibo.com

奉化市城区污水处理厂，在浙江省企业自行监测信息公开平台上显示，其直排口总氮连续超标排放。请 @生态环境部 关注，请 @浙江环保 @宁波市环境保护局 给予说明。@绿色江南公众环境关注中心 @蔚蓝地图 #蔚蓝地图# @PECC-LIJ @PECC-YCY @PECC-WK @PECC-LN @PECC-CB @PECCNL @PECC-HB ... 展开全文



采样日期	检测数据
2023-09-01	1.204
2023-09-02	1.198
2023-09-03	1.202
2023-09-04	1.206
2023-09-05	1.210
2023-09-06	1.214
2023-09-07	1.218
2023-09-08	1.222
2023-09-09	1.226
2023-09-10	1.230
2023-09-11	1.234
2023-09-12	1.238
2023-09-13	1.242
2023-09-14	1.246
2023-09-15	1.250
2023-09-16	1.254
2023-09-17	1.258
2023-09-18	1.262
2023-09-19	1.266
2023-09-20	1.270
2023-09-21	1.274
2023-09-22	1.278
2023-09-23	1.282
2023-09-24	1.286
2023-09-25	1.290
2023-09-26	1.294
2023-09-27	1.298
2023-09-28	1.302
2023-09-29	1.306
2023-09-30	1.310

**答复内容**

办理单位： 奉化区环境保护局

答复内容： 举报人您好！您反映的问题，经奉化区环保局进行调查处理，现将有关情况回复如下：9月1日开始至今，污水处理厂的总氮连续超标现象，我局执法人员到污水处理厂检查，下发整改决定书，并对水样进行检测，发现确实超标，我局立即展开调查，目前查明：1、城区污水处理厂是奉化区唯一的市政污水集中处理设施，目前污水零直排区的建设，导致污水处理厂超负荷运行，处理能力下降，提标、扩容改造项目目前还未实施。2、污水处理厂进水总氮浓度过高。针对目前掌握的情况，我局已依法处理。最后感谢您对环保工作的关心和支持！

(4) To be followed up

PECC reported on the Yaozhuang Sewage Treatment Plant of Jiashan Dadi Sewage Treatment Engineering Co., Ltd. on Weibo. Its total nitrogen, total phosphorus, and ammonia nitrogen data showed continuous excessive discharge. Then Jiashan Environmental Protection replied on Weibo that it had been transferred to the supervision team for investigation and treatment.



PECC-YWJ

2分钟前 来自 微博 weibo.com

嘉善县大地污水处理工程有限公司姚庄污水处理厂，在浙江省企业自行监测信息公开平台上数据显示，其总氮、总磷、氨氮显示连续多日超标。在IPE网站上显示，该企业2014年-2016年有4条环境监管记录，详见网址：[网页链接](#) 请 @环保部发布 关注，请 @浙江环保 @嘉兴环境保护 给予说明。...  
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### **3. Conclusion**

After the 2018 annual PECC conducts real-time monitoring of the discharge data of national sewage treatment plants, brave Weibo, 12369, and other channels to report to the relevant environmental protection departments to report excessive discharge companies, promote local environmental protection bureaus to promptly accept reports of excessive discharge companies, not only environmental supervision of government departments It is a useful supplement to promote public awareness and participation in information disclosure and environmental management and to grasp the situation of excessive pollutants discharged by sewage treatment plants, which can provide references for public participation, environmental protection research, and policy research.

Based on the analysis of the information disclosure data in 2018, we have found some problems, and give the following suggestions for these problems.

Recommendations to the environmental protection department:

- (1) Disclosure of heavy pollution source information is not complete;
- (2) The environmental protection government affairs microblog report should be two-pronged with the 12369 platform report, low-cost operation, and multiple channels to solve environmental problems.

Recommendations for sewage treatment plants:

- (1) The quality of pollution source monitoring needs to be improved, and the monitoring data should be reviewed and uploaded;
- (2) Strengthen the internal management of the enterprise.

Sewage treatment plants are the last line of defense for sewage treatment. In order to reduce the occurrence of over-standard problems, enterprises must not only strengthen management and improve sewage treatment processes,

but also the environmental protection department must strengthen supervision and actively promote and supervise sewage treatment enterprises' best upgrade and transformation work. In order to protect the environment and reduce pollution, we should develop a new model of multi-party cooperation between NGOs and environmental protection departments, enterprises, and the public to jointly strengthen environmental supervision and environmental management. In addition, daily public supervision channels should be opened, and public participation methods should be popularized for the public, so as to promote wide public participation.

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