

# 普兰店污水处理厂二期工程

## 竣工环境保护验收报告

建设单位:大连东达环境集团普兰店水务有限公司

编制单位: 大连净海环保科技有限公司

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建设单位：大连东达环境集团普兰店水务有限公司

法人代表：安雪松

编制单位：大连净海环保科技有限公司

法人代表：高佳林

项目负责人：屈姗姗

建设单位 大连东达环境集团普兰店水务有限公司

电话：15940880215

传真：

邮编：116200

地址：大连市普兰店区南山路  
338 号

编制单位 大连净海环保科技有限公司

电话：13464027267

传真：

邮编：116600

地址：大连市保税区泰豪创业孵化基地 301 室

# 目录

1 验收项目概况.....	1
2 验收依据.....	3
2.1 建设项目环境保护相关法律、法规、规章和规范.....	3
2.2 建设项目竣工环境保护验收技术规范.....	3
2.3 建设项目竣工环境保护验收执行标准.....	3
2.4 建设项目环境影响报告表及审批部门审批决定.....	4
2.5 主要污染物总量审批文件.....	4
3 工程建设情况.....	5
3.1 地理位置及平面布置.....	5
3.2 建设内容.....	9
3.3 主要原辅材料及燃料.....	15
3.4 水源及水平衡.....	15
3.5 生产工艺.....	15
3.6 项目变动情况.....	17
4 环境保护设施.....	18
4.1 污染物治理/处置设施.....	18
4.2 其他环保设施.....	21
4.3 环保设施投资及三同时落实情况.....	21
5 建设项目环评报告表的主要结论与建议及审批部门审批决定.....	23
5.1 建设项目环评报告表的主要结论与建议.....	23
5.2 审批部门审批决定.....	27
6 验收执行标准.....	29
6.1 大气污染物排放标准.....	29
6.2 废水污染物排放标准.....	29
6.3 噪声标准.....	29
6.4 固体废物执行标准.....	30
7 验收监测内容.....	31

7.1 环境保护设施调试效果.....	31
<b>8 质量保证及质量控制.....</b>	<b>33</b>
8.1 监测分析方法.....	33
8.2 监测仪器.....	33
8.3 人员资质.....	34
8.4 监测分析过程质量保证和质量控制.....	34
<b>9 验收监测结果.....</b>	<b>36</b>
9.1 废气监测结果与评价.....	36
9.2 废水监测结果与评价.....	38
9.3 噪声监测结果与评价.....	39
9.4 固体废物情况.....	40
<b>10 验收监测结论.....</b>	<b>41</b>
10.1 环保设施调试效果.....	41
10.2 综合结论.....	41
<b>11 建设项目环境保护“三同时”竣工验收登记表.....</b>	<b>43</b>
附件 1 关于《普兰店污水处理厂二期工程建设项目环境影响报告表》的批准决定 .....	45
附件 2 建设单位变更合同.....	47
附件 3 栅渣、沉沙外委发票.....	57
附件 4 污泥处理协议.....	58
附件 5 应急预案备案文件.....	60
附件 6 检测单位资质.....	62
附件 7 委托书.....	64
附件 8 监测报告.....	65



## 1 验收项目概况

普兰店区污水处理厂设计总规模 10 万  $\text{m}^3/\text{d}$ ，主要处理普兰店区城区生活污水和工业废水。其中一期工程设计规模 4 万  $\text{m}^3/\text{d}$ ，出水水质为《城镇污水处理厂污染物排放标准》一级 A 标准。本项目为普兰店污水处理厂二期工程，位于海湾经济区普兰店污水处理厂内，建设总规模为 6 万  $\text{m}^3/\text{d}$ ，污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地，占地面积约为 3.7 公顷，不新增建设用地。

根据《中华人民共和国环境影响评价法》和《建设项目环境保护管理条例》（中华人民共和国国务院第 682 号令）中的有关规定，普兰店污水处理厂二期工程，已取得相关环保手续。2018 年 4 月，中国市政工程东北设计研究总院有限公司编制完成了《普兰店污水处理厂二期工程环境影响报告表》。2018 年 5 月 11 日，通过了大连市普兰店区环境保护局的审批（普环评准字[2018]0011 号）。项目于 2018 年 5 月开工建设，2018 年 11 月竣工，竣工后开始进行试运行。

环评编制期间建设单位为大连市普兰店区城乡建设管理与综合执法局，2018 年 5 月大连市普兰店区城乡建设管理与综合执法局将本项目的建设、经营、移交权特许给了大连东达环境集团普兰店水务有限公司，相关协议见附件 2。

根据《建设项目环境保护管理条例》（中华人民共和国国务院第 682 号令）、《建设项目竣工环境保护验收暂行办法》（国环规环评（2017）4 号）等文件的规定，本项目需进行项目竣工环境保护验收工作。为此，大连东达环境集团普兰店水务有限公司委托大连净海环保科技有限公司开始进行本项目竣工环境保护验收报告的编制工作。

根据《普兰店污水处理厂二期工程环境影响报告表》及其批复，本次验收的范围主要是普兰店污水处理厂二期工程的环境保护措施落实情况及设施运行情况。验收的内容包括污水处理有组织废气以及污水处理厂的无组织排放；污水处理厂出水；生活垃圾及工业固废；厂界噪声。本项目污水处理有组织废气污染物排放执行《恶臭污染物排放标准》（GB14554-93）表 2 中相关标准要求，无组织排放执行《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界废

气排放最高允许浓度”的二级标准；一般工业固体废物执行《一般工业固体废物贮存、处置场污染控制标准》（GB18599-2001）及修改单中的有关规定；厂界噪声评价标准执行《工业企业厂界环境噪声排放标准》（GB12348-2008）中3类功能区标准；废水执行满足《城镇污水处理厂污染物排放标准》（GB18918-2002）一级标准中的A标准。

根据《固定污染源排污许可分类管理名录（2017年版）》，本项目属于“十三、通用工序”中的“82 生活污水集中处理、工业废水集中处理”，本项目建成后普兰店污水处理厂日处理量为10万m<sup>3</sup>/d，属于重点管理的企业，排污许可的实施年限是2019年。企业自行编制排污许可申请表，目前企业排污许可申请表已递交至普兰店环保局，等待审批。

大连净海环保科技有限公司接受委托后，于2018年12月3日-12月4日对工程现场进行了勘察，在查阅建设单位提供的有关资料基础上，对本项目生产负荷、生产工艺、污染物排放和污染防治措施的落实情况进行了调查和现场监测，并在此基础上编制了本项目竣工环境保护验收报告。



## 2 验收依据

### 2.1 建设项目环境保护相关法律、法规、规章和规范

- (1) 《中华人民共和国环境保护法》(2014 年修订, 2015 年 1 月 1 日施行);
- (2) 《中华人民共和国大气污染防治法》(2015 年 8 月修订, 2016 年 1 月 1 日施行);
- (3) 《中华人民共和国环境噪声污染防治法》(1997 年 3 月 1 日施行);
- (4) 《中华人民共和国水污染防治法》(2017 年 6 月 27 日第二次修订, 2018 年 1 月 1 日施行);
- (5) 《中华人民共和国固体废物污染环境防治法》(2016 年 11 月 7 日修订);
- (6) 《建设项目环境保护管理条例》(国务院令 682 号, 2017 年 7 月 16 日修订, 2017 年 10 月 1 日施行);
- (7) 《关于规范建设单位自主开展建设项目竣工环境保护验收的通知(征求意见稿)》(环办环评函[2017]1235 号);
- (8) 关于发布《建设项目竣工环境保护验收暂行办法》的公告(国环规环评[2017]4 号);
- (9) 《排污单位自行监测技术指南总则》(HJ819-2017, 2017 年 06 月 01 日);
- (10) 《辽宁省环境保护厅关于加强建设项目竣工环境保护验收工作的通知》(辽环发[2018]9 号)。

### 2.2 建设项目竣工环境保护验收技术规范

- (1)《建设项目竣工环境保护验收技术指南 污染影响类》(生态环境部[2018]第 9 号, 2018.05.16)。

### 2.3 建设项目竣工环境保护验收执行标准

- (1) 《恶臭污染物排放标准》(GB14554-93);
- (2) 《城镇污水处理厂污染物排放标准》(GB18918-2002);

(3) 《工业企业厂界环境噪声排放标准》(GB12348-2008)；

(4) 《一般工业固体废物贮存、处置场污染控制标准》(GB18599-2001)及修改单(2013 年)。

## 2.4 建设项目环境影响报告表及审批部门审批决定

(1) 中国市政工程东北设计研究总院《普兰店污水处理厂二期工程环境影响报告表》(2018 年 4 月)；

(2) 大连市普兰店区环境保护局《关于“普兰店污水处理厂二期工程建设项目环境影响报告表”的批准决定》(普环评准字[2018]0011 号)。

## 2.5 主要污染物总量审批文件

本项目无总量审批文件。



### 3 工程建设情况

#### 3.1 地理位置及平面布置

普兰店污水处理厂二期工程位于大连市普兰店区普兰店污水处理厂内(东经  $121.945499^{\circ}$  , 北纬  $39.411085^{\circ}$  ) , 占地面积  $3.7\text{hm}^2$  , 为一期工程预留地。二期工程处理构筑物主要包括预处理单元、AAO 反应池、沉淀池、二级提升泵房、高密度沉淀池、活性砂滤池与紫外消毒渠。粗格栅及进水泵房位于厂区南部接近厂区进水口, AAO 反应池及沉淀池位于中水回用单元北侧空地, 深度处理及消毒单元位于厂前区南侧。项目的地理位置见图 3.1-1, 厂区平面布置见图 3.1-2。

本项目位于普兰店区海湾工业区内, 项目占地为平整的建设预留地, 工程所在周边情况简述如下具体周围环境概况见图 3.1-3。

东侧: 相隔工业区内 30m 宽道路, 为沿河绿化带, 绿化带东侧为平安河河道; 与项目厂界相隔 500m 的距离为普兰店市第 34 中学;

东北侧: 项目东北侧相隔绿化带为平安河, 与项目厂界相隔 500m 为金海湾二期住宅小区;

东南侧: 项目东南侧相隔绿化带为平安河与鞍子河交汇河道, 与项目厂界相隔 550m 为西班牙映像住宅小区;

南侧: 项目南侧相隔绿化带、鞍子河河道, 与项目厂界相隔 625m 为海湾新城住宅小区;

西侧: 为海湾工业区开发建设用地;

北侧: 为大连昌丰重工集团和东信轴承滚子公司。



图 3.1-1 本项目地理位置





图 3.1-2 厂区总平面布置图

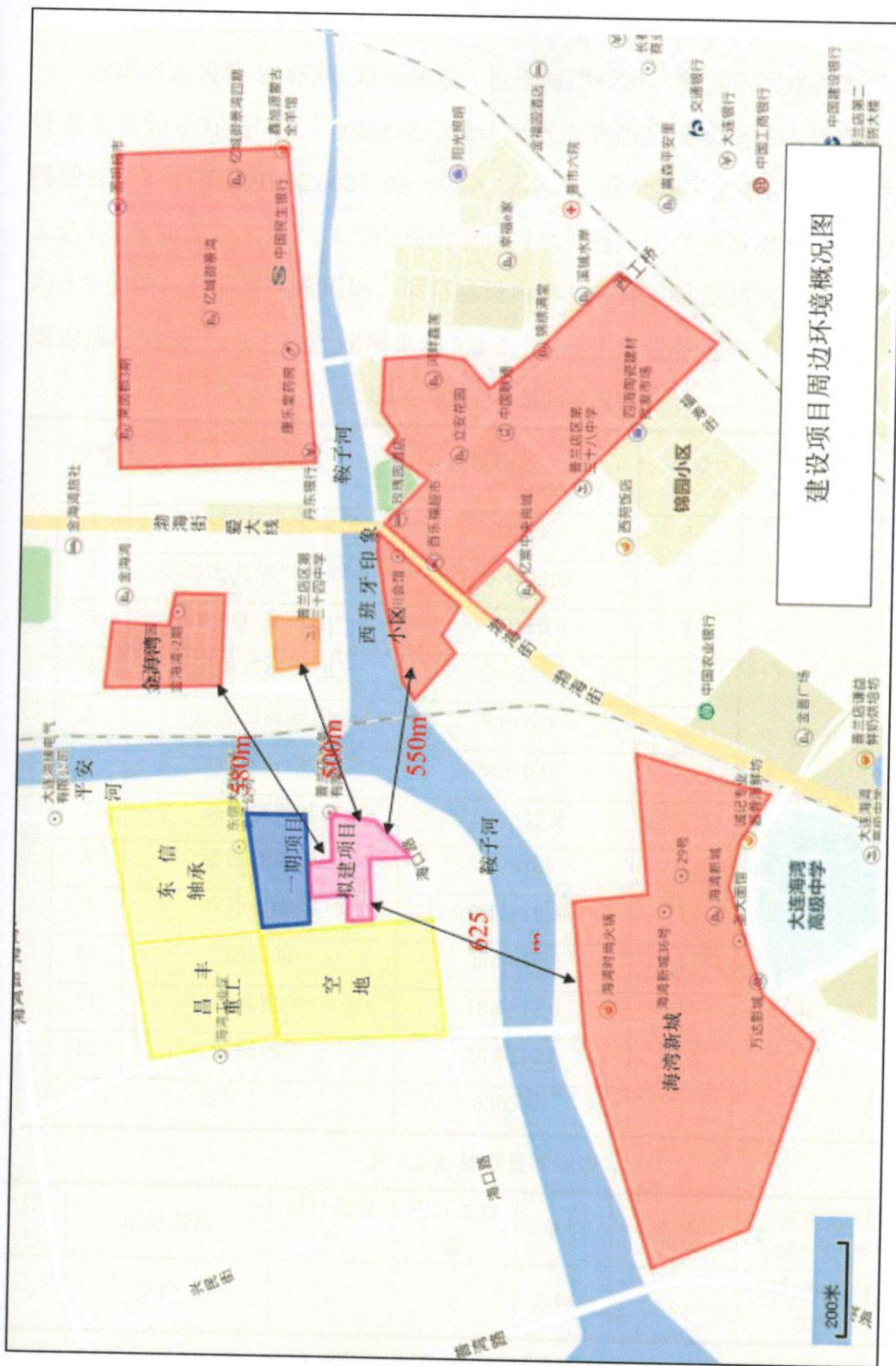


图 3.1-3 本项目周围环境概况图



## 3.2 建设内容

### (1) 项目建设内容

本项目总投资 8245.08 万元建设, 位于海湾经济区普兰店污水处理厂内, 建设总规模为 6 万  $\text{m}^3/\text{d}$ , 污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地, 占地面积约为 3.7 公顷, 不新增建设用地。项目建设内容与环评及批复基本一致。本项目建筑物情况见表 3.2-1, 生产规模见表 3.2-2, 主要生产设备见表 3.2-3 和表 3.2-4。

表 3.2-1 本项目建筑物情况列表

序号	名称	建筑面积 ( $\text{m}^2$ )	数量	实际建设情况 (对比环评及批复)
1	粗格栅及进水泵房	25×18	1	实际建设与环评及其批复一致
2	细格栅及曝气沉砂池	40.4×12.0	1	
3	AAO 反应池	59.9×50.0	1	
4	辐流式沉淀池	$\Phi=28\text{m}$	2	
5	污泥回流泵房	9.0×6.0	1	
6	二级提升泵房	9.0×6.0	1	
7	高效沉淀池	23.5×19.9	1	
8	活性砂滤池	12×20.8	1	
9	紫外消毒渠	11.0×2.7+16.8×1.6	1	
10	加药间	28.5×10.2	1	
11	鼓风机房	18.0×12.6	1	
12	变配电室	28.5×12.6	1	
合计		6303.67	-	

表 3.2-2 处理量明细表

序号	项目名称	设计处理量	实际处理量	单位	备注	实际建设情况 (对比环评及批复)
1	二期工程	6	6	万吨/d	/	实际建设与环评及其批复一致

表 3.2-3 主要生产设备明细表

序号	设备名称	单位	数量	规格型号	实际建设情况 (对比环评及)
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					批复)
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## 一、粗格栅及进水泵房

1	回转式格栅除污机	台	2	B=1000mm,b=20mm, $\alpha=75^\circ$ , N=1.1kW,渠宽 1100mm	实际建设与环评及其批复一致
2	无轴螺旋输送机	台	1	LS300 L=3.6m, N=2.2kW	
3	潜污泵	台	3	Q=820m <sup>3</sup> /h, H=14m,N=37kW 2 用 1 备,一台变频	
4	镶铜铸铁方闸门	套	4	1100×1100, N=2.2kW	
5	电动葫芦	台	1	MD <sub>1</sub> 2-18D, N=3.4kW	
6	栅渣车	辆	1	-	

## 二、细格栅及曝气沉砂池

1	回转式格栅除污机	台	2	B=1600mm,b=5mm, $\alpha=75^\circ$ , N=2.2kW,渠宽 1700mm	实际建设与环评及其批复一致
2	螺旋输送压榨一体机	台	1	LS300 L=4m, N=2.2kW	
3	渠道闸门	台	4	1700×1700	
4	桥式吸砂机	套	1	N=7.1kW,附 2 台吸砂泵	
5	砂水分离器	套	1	Q=12 20L/s N=0.37kW	
6	罗茨鼓风机	套	2	Q=10m <sup>3</sup> /min, N=15kW	
7	栅渣车	辆	2	-	

## 三、AAO 反应池

1	潜水搅拌器 (选择区)	台	2	N=4.0kW	由于优化设计及布局, 缺氧区潜水搅拌器由环评中的 12 个减少至 6 个。
2	潜水搅拌器 (厌氧区)	台	4	N=4.0kW	
3	潜水搅拌器 (缺氧区)	台	6	N=5.5kW	
4	内回流泵	台	4	Q=1030m <sup>3</sup> /h H=1.5m, N=7.5kW	
5	微孔曝气器	台	231 2	供气量 4.2m <sup>3</sup> /h·只	
6	手动方闸门	台	4	1200*50	
7	下开式方闸门	台	4	1000*50	

## 四、辐流式沉淀池



1	中心传动单管吸泥机	套	2	N=0.37kW	实际建设与环评及其批复一致
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## 五、污泥回流泵房

1	污泥回流泵	台	3	Q=815m <sup>3</sup> /h, H=5.0m, N=18.5kW 2用1备, 一台变频	实际建设与环评及其批复一致
2	剩余污泥泵	台	2	N=4kW	
3	电动葫芦	台	1	MD <sub>1</sub> 2-9D, N= 3.4 kW	

## 六、二级提升泵房

1	二级提升泵	台	3	Q=820m <sup>3</sup> /h, H=8m, N=22kW, 2用1备, 一台变频	实际建设与环评及其批复一致
2	电动葫芦	台	1	MD <sub>1</sub> 2-9D, N= 3.4kW	

## 七、高效沉淀池

1	混合搅拌机	台	2	N=3kW, 变频	实际建设与环评及其批复一致
2	絮凝搅拌机	台	2	N=5.5kW, 变频	
3	絮凝反应装置	套	2	Φ2500mm	
4	污泥浓缩机	台	2	Φ10800mm, N=1.5kW	
5	污泥螺杆泵（回流）	台	3	Q=50m <sup>3</sup> /h, H=30m, N=15kW, 2用1备, 2台变频	
6	污泥螺杆泵（剩余）	台	2	Q=50m <sup>3</sup> /h H=30m N=15kW	
7	斜管	套	4	Φ80 L=1.0	
8	斜管支撑	套	4	/	
9	三角堰集水槽	套	24	4.8m×0.5m×0.24m	
10	进水调节堰	套	2	2980mm×300mm×3mm	
11	潜水排污泵（排水）	台	1	Q=15m <sup>3</sup> /h H=7m N=0.75kW	

## 八、活性砂滤池

1	活性砂过滤器	套	32	砂床高度 2000mm	实际建设与环评及其批复一致
2	空压机	台	3	Q=3.0m <sup>3</sup> /min, N=18.5kW, 2用1备	
3	冷干机	台	1	Q≥6.0m <sup>3</sup> /min	

4	精密过滤器	支	3	精度 1 $\mu$ m, P=1Mpa	
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## 九、鼓风机房及变配电室

1	高速悬浮离心鼓风机	台	3	Q= 80m <sup>3</sup> /min, P=8.0mH <sub>2</sub> O, N=130kW, 2 用 1 备	实际建设与环评及其批复一致
2	电动单梁起重机	台	1	起重量 3t, N=3.4kW	

## 十、加药间

1	PAM 投加系统	套	1	Q=3000L/h, N=10kW	实际建设与环评及其批复一致
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## 十一、紫外线消毒渠

1	紫外线灯管	套	1	灯管 72 根, N=24kW	实际建设与环评及其批复一致
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## 十二、除臭系统

1	粗格栅及进水泵房	套	1	Q=3000m <sup>3</sup> /h N=10kW	实际建设与环评及其批复一致
2	细格栅、曝气沉砂池	套	1	Q=12000m <sup>3</sup> /h N=35kW	

表 3.2-4 自控设备一览表

序号	设备名称	型号与规格	单位	数量	实际建设情况 (对比环评及批复)
仪表系统					
1	溶解氧仪	0~20mg/L	套	6	实际建设与环评及其批复一致
2	总磷在线分析仪	0~20mg/L(分段检测)	/	2	
3	总氮在线分析仪	0~100mg/L(分段检测)	/	2	
4	氧化还原电位仪	-1500mv~+1500mv	套	6	
5	悬浮物浓度测量仪	0~50g/L	套	2	
6	压力变送器	0~100kpa	套	1	
7	气体流量计	热式质量	套	1	
8	超声波液位计	0~10m	套	3	
9	超声波液位差计	0~8m	套	2	
10	电磁流量计	/	套	3	
11	悬浮物浓度测量仪	0~300mg/L	套	2	
12	泥位计	0~10m	套	2	
13	进出水检测系	COD、氨氮、PH 计、	套	2	



		数采仪			
14	仪表箱	400×450×300	套	12	

## 自控系统

1	UPS 电源	3KVA 在线隔离式	台	1	实际建设与环评及其批复一致
2	PLC4	/	套	1	
3	工业以太网交换机	/	套	1	
4	组态、编程软件	满足系统要求	套	1	
5	电源防雷器	220V 电源	套	30	
6	信号防雷器	4~20mA/Dp	套	30	

## 安装材料

1	计算机专用电缆	DJYPVP-2×2×1.5	米	1200	实际建设与环评及其批复一致
2	控制电缆	KYJVP-10×1.5	米	2500	
3	控制电缆	KYJVP-7×1.5	米	1500	
4	控制电缆	KYJVP-3×1.5	米	1500	
5	现场总线电缆	/	米	300	
6	通讯光缆	/	米	1000	
7	镀锌钢管	/	吨		

## (2) 项目投资

本项目总投资 8245.08 万元，其中，实际环保投资 338 万元，环保投资占总投资的 4.01%，本项目环保投资情况见表 3.2-5。

表 3.2-5 工程环保设施投资情况

类别	项目	防治措施	设计投资 (万元)	实际投资 (万元)	实际建设情况 (对比环评及 批复)
废气	施工期扬尘	设置围挡、地面硬覆盖、洗车平台	10.0	10.0	实际建设与环评及其批复一致
	运营期恶臭	全封闭结构，生物滤池除臭装置、排气筒	120.0	120.0	
噪声	施工期噪声	设备日常维护保养、减振、吸声及隔声处理	5.0	5.0	
	运营期设备噪声	设备日常维护保养、减振、吸声及隔声处理	10.0	10.0	
废水	施工期废水	储水池、沉砂池	5.0	5.0	
固废	施工期固废	弃土防雨、运输	10.0	10.0	

废	运营期固废	污泥和垃圾集运设施	5.0	5.0
环境 风险	运营期	报警装置	3.0	3.0
其 他	绿化、景观建设	绿色植物、景观	10.0	10.0
	检测仪器及 监控设施	流量计、氨氮在线仪、 COD 在线仪等	160.0	160.0
合 计	——	——	338.0	338.0

### (3) 公辅设施情况

#### ① 供电系统

本项目由市政统一供电，厂内设置配电室。

#### ② 供暖系统

本项目冬季供热由市政供热管网统一供给。

#### ③ 给水系统

本项目给水由城市给水管网引入。生活用水主要为办公楼、门卫、绿地等用水。生产用水主要为加药房用水。

#### ④ 排水系统

本项目厂区排水系统采用雨污分流制，生活、生产废水及构筑物放空污水由污水管网收集排至本工程进水泵房的格栅井。厂区雨水经沿路的雨水斗收集，接入原厂区内雨水系统。

#### ⑤ 人流通道及物料通道

本工程的污泥经脱水后外运，以及加氯加药间的物料都通过在厂区西北侧副门外。

⑥ 污水厂内主要道路路幅宽采用 4.0m、6.0m，转弯半径 9m 和 6m，满足消防要求，道路与构筑物之间便道采用 2.0m。主要道路和一般道路采用柏油路面，主要道路行车速度为 15km/h，厂内道路交叉口路面内边缘转弯半径不小于 6m。

### (4) 生产组织与劳动定员

本项目依托于企业现有管理体制及组织机构，员工由企业统一调配，不新增员工。污水处理厂全年 24 小时运行。



### 3.3 主要原辅材料及燃料

#### (1) 原辅材料及燃料

本项目原、辅材料及能源消耗见表 3.3-1。

表 3.3-1 主要原、辅材料及能源消耗表

原料名称		环评年用量	实际年用量	备注	对比环评及批复
三氯化铁		328.5t	328.5t	-	与环评及其批复一致
絮凝剂		10.95t	10.95t	-	
能源消耗	新鲜水	821.3m <sup>3</sup>	821.3m <sup>3</sup>	来自市政供水管网	与环评及其批复一致
	电	362.81×10 <sup>4</sup> kW·h	362.81×10 <sup>4</sup> kW·h	来自市政供电系统	

#### (2) 来源及储运情况

企业所用原辅材料运输至厂后均放置在指定的储存区域内,具体的储存方式见表 3.3-2。

表 3.3-2 原辅材料储存方式

序号	名称	相态	包装/储存方式	规格	年耗用量 (t)	最大存储量 (t)	实际建设情况 (对比环评及批复)
1	三氯化铁	液体	罐装	15t	328.5	45	实际建设与环评及其批复一致
2	絮凝剂	固体	袋装	25kg	10.95	0.5	

原料运输:项目所用原辅材料全部由供应商供货并负责运输至厂内,建设单位同各供应商签订的买卖合同中约定了供应商以汽车运输形式,将货物运送到买方厂区内。

成品运输:成品采用汽车运出厂,发送到港口或铁路车站。

### 3.4 水源及水平衡

本项目新鲜用水来自市政供水管网,主要为员工生活用水,总用水量为 821.3m<sup>3</sup>/a,皆通过本项目污水处理系统进行处理,污水处理站处理量为 6 万 t/d。

### 3.5 生产工艺

#### 3.5.1 工艺流程

普兰店污水处理厂二期工程根据项目可行性研究报告比选,最终确定本项目

选用 A/A/O 工艺。

工艺流程如图 3.5-1。

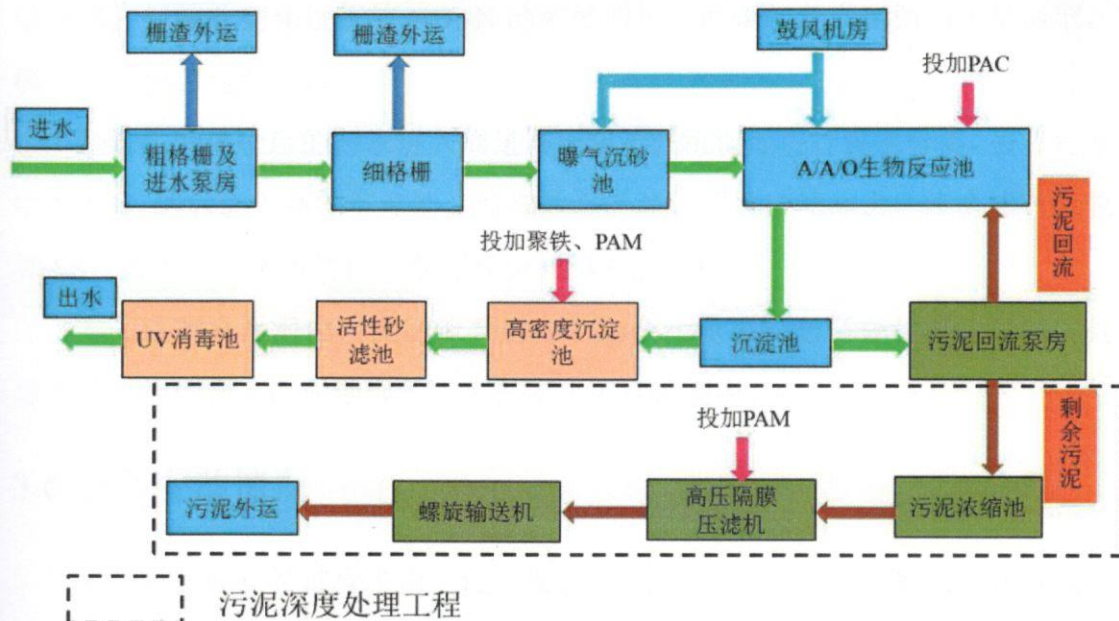


图 3.5-1 污水处理厂二期工程工艺流程图

### 3.5.2 工艺说明

进入污水处理厂的污水首先通过进厂管网进入粗格栅，去除污水中较大的漂浮物，然后自流进入进水泵房，经污水泵提升进入细格栅和曝气沉砂池，去除污水中较小的漂浮物和砂粒，然后自流进入具有厌氧、缺氧、好氧一体的 A/A/O 生物反应池。

AAO 生化池是整个污水处理工艺的主体构筑物。反应池结构上分为选择区、厌氧区、缺氧区、好氧区。污水入流 10%~20% 的污水进入选择区，80%~90% 的污水进入厌氧区，在选择区内，来自二沉池的回流污泥和 10% 左右的进水进入该池，停留时间接近 1 小时，微生物利用 10% 进水中的有机物作碳源进行反硝化，去除回流污泥带入的硝酸盐，消除硝态氮对厌氧池放磷的不利影响，保证除磷效果。然后污水进入厌氧区，厌氧段的主要功能是释放磷，使污水中的磷浓度升高，溶解性的有机物被微生物细胞吸收而使污水中的 BOD 浓度下降；另外， $\text{NH}_4^+\text{-N}$  因细胞合成而被去除一部分，使污水中  $\text{NH}_4^+\text{-N}$  浓度下降，但  $\text{NO}_3\text{-N}$  含量没有变化。在缺氧段，反硝化菌利用污水中的有机物作碳源，将回流混合液中带入的大量硝态氮 ( $\text{NO}_x\text{-N}$ ) 还原为  $\text{N}_2$ ，而达到脱氮目的。同时在缺氧段中 BOD



浓度继续下降， $\text{NO}_3\text{-N}$  浓度大幅度下降，而磷的变化很小。在好氧池中，有机物被微生物生化降解，而继续下降；有机氮被氨化继而被硝化，使  $\text{NH}_3\text{-N}$  浓度显著下降，但随着硝化过程使  $\text{NO}_3\text{-N}$  的浓度增加，而磷随着聚磷菌的过量摄取，磷也以较快的速率下降。

经过生物处理后的污水进入周进周出辐流式沉淀池进行泥水分离，去除污水中的 SS，然后进入高效沉淀池，经高效沉淀池和活性砂滤池进一步去除有机物和 SS，确保出水水质达标，最终经紫外消毒后外排。

本工程剩余污泥由污泥回流泵房中的剩余污泥泵输送至普兰店污泥深度处理系统进行处理，污泥处理工程不在本次工程范围内。。

### 3.6 项目变动情况

本项目实际建设过程中由于优化设计，缺氧区潜水搅拌器比环评设计阶段减少了 6 个。本项目实际建设中的变动不会造成污染物排放浓度的增加，故本项目未发生重大变更。

## 4 环境保护设施

### 4.1 污染治理/处置设施

#### 4.1.1 废水

本项目排放的废水主要为污水处理后的排水。废水主要污染物及治理措施见表 4.1-1。

表 4.1-1 废水来源及处理方式

废水类别	来源	污染物种类	排放量	排放规律	治理措施及排放去向
生产废水	水处理排水	COD、BOD <sub>5</sub> 、SS、氨氮、总氮、总磷	2190t/a	连续	污水处理后达到《城镇污水处理厂污染物排放标准》(GB18918-2002)一级 A 标准。污水经处理厂处理后排入鞍子河 (V 类水体)。

#### 4.1.2 废气

本项目产生的废气主要是污水处理厂运行时产生的恶臭气体。废气主要污染物及治理措施见表 4.1-2。

表 4.1-2 废气来源及处理方式

废气名称	来源	污染物种类	排放形式	治理措施及排放去向
恶臭气体	污水处理过程	H <sub>2</sub> S、NH <sub>3</sub> 、臭气浓度	有组织排放	将臭气各自收集后通过总母管一并进入除臭系统,经过生物滤池除臭工艺进行除臭,之后通过 15m 排气筒有组织排放。

#### 4.1.3 噪声

本项目运营后主要噪声源为污水处理过程中生产设备、风机等,噪声产生及治理情况见表 4.1-3。

表 4.1-3 噪声来源及处理方式

单位: dB (A)

噪声类别	设备名称	源强	排放方式	设备位置	治理措施
设备运行噪声	污水泵	85-95	间歇	污水提升泵	选择低噪声设备,进行合理布局,采取隔声、吸声、隔振等综合措



鼓风机	100		曝气沉砂池	施处理。
潜水泵	90		生化池	
污泥泵	85-95		污泥浓缩池	
罗茨风机	100		鼓风机房	
送水泵、放冲洗水泵	90		送水泵房	

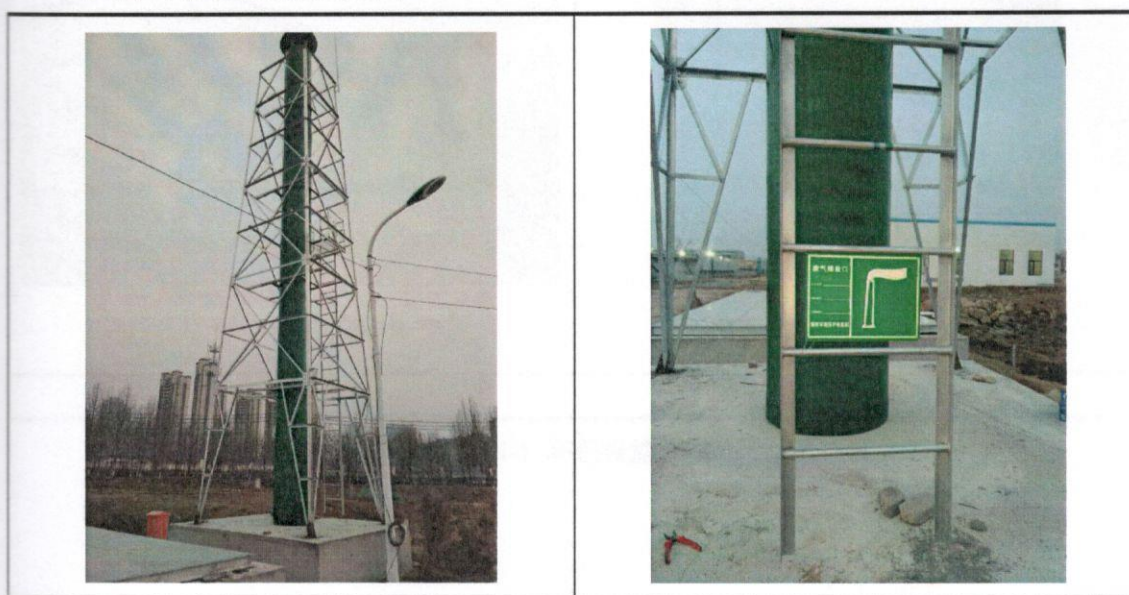
#### 4.1.4 固（液）体废物

本项目产生的一般固体废物主要为栅渣、沉砂、污泥以及生活垃圾等，固体废物治理情况见表 4.1-4。

表 4.1-4 固体废物来源及处理方式

固体废物名称	来源	性质	产生量	治理措施及去向
栅渣	污水处理过程	一般工业固体废物	3153.6t/a	栅渣、沉砂委托普兰店日洁环境清洁有限公司进行处理；污泥委托送至夏家河污泥处理厂进行处理，待厂区内的污泥深度处理工程运行后自行处理，处理后送至普兰店垃圾填埋场进行填埋；职工生活垃圾每天由保洁人员收集，送至环卫部门指定的堆放点，由环卫部门统一处置，相关协议见附件 3 和附件 4。
沉砂			9.86t/a	
污泥			6416t/a	
生活垃圾	员工生活		3.65t/a	

具体环保设施情况见图 4.1-1。





生物除臭装置	规范化排放口
	
污水处理（AAO 反应池）	规范化排放口
	
消音版	泵房封闭
	
鼓风机房封闭	固废暂存间
	

图 4.1-1 环保设施情况



## 4.2 其他环保设施

### 4.2.1 环境风险防范设施

大连东达环境集团普兰店水务有限公司于2018年12月7日签署发布了突发环境事件应急预案，文件名称为《大连东达环境集团普兰店水务有限公司二期工程突发环境事件应急预案》，建设单位于2018年12月10日在普兰店区环境保护局完成了该环境风险应急预案的备案工作，备案编号为210282-2018-019-L，备案文件见附件5。

### 4.2.2 其他设施

本项目污染物排放口已按规范建设并设置标识牌。

## 4.3 环保设施投资及三同时落实情况

本项目总投资8245.08万元，其中，实际环保治理措施投资338万元，占总投资的4.01%，具体情况见表4.3-1。

表 4.3-1 环保措施投资一览表

序号	项目	治理措施	实际金额（万元）
施工期	扬尘	设置围挡、地面硬覆盖、洗车平台	10
	噪声	设备日常维护保养、减振、吸声及隔声处理	5
	废水	储水池、沉砂池	5
	固废	弃土防雨、运输	10
运营期	设备噪声	设备日常维护保养、减振、吸声及隔声处理	10
	恶臭	全封闭结构，生物滤池除臭装置、排气筒	120
	固体废物	污泥和垃圾集运设施	5
	环境风险	报警装置	3
其他	绿化、景观建设	绿色植物、景观	10
	检测仪器及监控设施	流量计、氨氮在线仪、COD在线仪等	160
合计			338
总投资			8245.08
环保投资占总投资比例（%）			4.01

环评及批复要求其落实情况见表4.3-2。

表 4.3-2 环评及批复要求落实情况

序号	环评及批复要求	落实情况
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序号	环评及批复要求	落实情况
1	该项目总投资约 8245.08 万元人民币,位于普兰店海湾经济区普兰店污水处理厂内,建设总规模为 6 万 m <sup>3</sup> /d, 污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。	已落实: 本项目总投资约 8245.08 万元人民币, 位于普兰店海湾经济区普兰店污水处理厂内, 建设总规模为 6 万 m <sup>3</sup> /d, 污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。。
2	本工程利用现状污水处理厂厂区预留用地, 占地面积约 3.7 公顷, 不新增建设用地, 主要污染物是施工期扬尘、生活废水、噪声、一般固废, 运营期恶臭气体、废水、噪声、一般固废等。	已落实: 本工程利用现状污水处理厂厂区预留用地, 占地面积约 3.7 公顷, 未新增建设用地, 主要污染物是施工期扬尘、生活废水、噪声、一般固废, 运营期恶臭气体、废水、噪声、一般固废等。
3	工程建设必须严格执行环境保护设施与主体工程同时设计、同时施工、同时投入使用的环境保护“三同时”制度。项目竣工后, 须按要求进行建设项目竣工环保验收, 验收合格后方可运营。	已落实: 工程建设严格执行环境保护设施与主体工程同时设计、同时施工、同时投入使用的环境保护“三同时”制度。项目竣工后, 按要求进行建设项目竣工环保验收, 验收合格后方可运营。
4	报告表经批准后, 项目的性质、规模、地点及污染防治措施等发生重大变化的, 应重新报批报告表。自报告表批准之日起, 超过五年方决定开工建设的, 报告表应当报我局重新审核。	已落实: 报告表经批准后, 项目的性质、规模、地点及污染防治措施等未发生重大变化。
5	该项目应按照排污许可证相关管理规定, 申请并取得排污许可证。	已落实: 本项目正在按照排污许可证相关管理规定申请排污许可证。



## 5 建设项目环评报告表的主要结论与建议及审批部门审批决定

### 5.1 建设项目环评报告表的主要结论与建议

#### 5.1.1 建设项目环评报告表的主要结论

##### 1、工程概况

普兰店污水处理厂二期工程位于海湾经济区普兰店污水处理厂内，建设总规模为 6 万 m<sup>3</sup>/d，污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地，占地面积约为 3.7 公顷，不新增建设用地。项目污泥依托厂区新建污泥深度处理工程统一处理。污水处理厂排水近期一部分回用，剩余排入鞍子河，远期项目排水全部用于普兰店区热电厂工程。

##### 2、环境现状评价结论

大连市普兰店区环境空气质量满足《环境空气质量标准》（GB3095-2012）中二级标准。

厂界周围昼间厂界噪声值为 47-60dB(A)，夜间厂界噪声值为 46-54dB(A)，该区域昼间、夜间噪声均满足《声环境质量标准》（GB3096—2008）中 3 类标准。

##### 3、主要环境问题及污染物排放情况

###### （1）建设项目主要环境问题

- ①大气影响源：施工扬尘；污水处理厂运行过程产生的臭气。
- ②水影响源：施工废水；污水处理后排放。
- ③固体废弃物：施工固体废弃物；污水处理过程中产生的格栅渣、沉砂等固体废弃物；员工生活垃圾。

- ④噪声：施工噪声；污水、污泥处理设备运行产生的噪声。

###### （2）污染物排放量统计

表 5.1-1 污染物排放量统计表

项目	污染物	产污环节	产生量	增减量	排放量
废气	H <sub>2</sub> S	除臭间	1.322	-1.1898	0.1322
	NH <sub>3</sub>		0.674	-0.6066	0.0674
废水	COD	排水	9855	-8760	1095
	BOD <sub>5</sub>		4380	-4161	219
	SS		4380	-4161	219
	NH <sub>3</sub> -N		766.5	-657	109.5
	TN		985.5	-657	328.5
	TP		109.5	-98.55	10.95
固体废物	栅渣、砂渣	格栅间、沉砂池	3163.46	0	3163.46
	生活垃圾	生活系统	3.65	0	3.65

#### 4、环境影响分析结论

##### (1) 大气影响分析结论

本次环评选取 H<sub>2</sub>S、NH<sub>3</sub> 为大气环境影响预测因子，由预测结果可以看出，环保设施正常运行并达到设计治理效果的情况下，项目废气排放在厂界落地浓度均满足《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带）边缘废气排放最高允许浓度”NH<sub>3</sub>1.5mg/m<sup>3</sup> 及 H<sub>2</sub>S0.06mg/m<sup>3</sup> 的要求，项目正常情况排放的大气污染物对大气环境影响较小。

环保设施非正常运行情况下，即除臭设施失效情况下，由预测结果，H<sub>2</sub>S 和 NH<sub>3</sub> 虽然满足《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带）边缘废气排放最高允许浓度”NH<sub>3</sub>1.5mg/m<sup>3</sup> 及 H<sub>2</sub>S0.06mg/m<sup>3</sup> 的要求，但占标率较高，对环境有一定影响。故建设单位应加强管理、定期检修确保除臭装置的正常、稳定运行，避免除臭装置出现故障而无法将各臭气有效处理排放。

##### (2) 声环境影响预测分析结论

本项目主要噪声源为各类水泵、风机等，采取综合隔声降噪措施，经预测，传播至厂界处噪声值均满足《工业企业厂界环境噪声排放标准》（GB12348-2008）中 3 类标准。

##### (3) 水环境影响预测分析结论

本项目产生的污水主要为工作人员的生活污水、设备冲洗废水及污水处理厂的排水。项目产生的生活污水、设备冲洗废水直接进入污水处理厂进行处理。污水处理厂出水的水质执行一级 A 标准，处理后排水利用一期污水厂处理厂排放



口排入至鞍子河（V类水体），不会对该区域地下水造成污染。

#### （4）卫生防护距离结论

经计算，确定本项目卫生防护距离为 100m，项目距离最近的敏感点为本项目东侧 500m 的 34 中学，能够满足卫生防护距离的要求。

### 5、污染防治措施结论及建议

#### （1）废气污染防治措施评价结论

##### ①除臭设备

本项目对重点部位臭气采取有组织收集、处理和排放。将产臭的主要部位全部封闭。项目设计采用的是生物除臭工艺，通过对恶臭气体中的主要污染因子  $\text{H}_2\text{S}$ 、 $\text{NH}_3$  的预测，经臭气处理系统收集处理后排放的臭气，正常工况下各因子扩散到厂界处浓度值均低于其相应标准。建设单位在营运期间，要做好除臭设施的维护和检修工作，确保治理设施在正常工况下稳定运行。

##### ②绿化措施

除了采取臭气集中治理措施外，绿化工程对减少臭气污染也有很大的帮助。根据建设单位初步设计，在污水处理厂周边建设防护带、对厂区道路两侧、厂区主入口广场以及反应池盖顶进行绿化。

#### （2）废水污染防治措施评价结论

①建设单位应严格规范化操作，工作人员定期对污水处理装置进行检查和维修，使其始终处于正常工作状态；

②加强对各类机械设备的定期检查、维护和管理；

③污水处理厂要采用双回路供电，防止停电造成运转事故；

④在污水处理厂进水口在线 COD、氨氮等测定仪对服务范围内的废水进行审计与监测，对进入污水管网系统的所有排污单位的废水量和水质进行登记，与排污单位签订废水处理服务合同，规定各排污单位的废水排放量和废水水质；

⑤在污水处理厂出水口处应设置在线 COD、氨氮等测定仪，对出水水质进行在线监控，一旦发现出水水质不达标，立即采取相应措施；

⑥为保护地下水水质，报告建议对污水管道应通过采用防渗管材、以及在污水管外包裹防渗材料等多种工程措施，确保管道不渗漏。

#### （3）噪声污染防治措施评价结论

应尽可能选用低噪声设备；对噪声超标设备采用隔声、消声、减振等降噪措施；对操作人员进行防噪保护等一系列噪声控制措施。确保治理后的噪声传播至厂界处噪声值满足《工业企业厂界环境噪声排放标准》（GB12348-2008）中3类区标准。

#### （4）固体废物污染防治措施评价结论

污水处理厂将营运后产生的栅渣、沉砂集中收集后送至生活垃圾填埋场，生活垃圾全部实行袋装化，且由专人负责收集，送至市政指定的垃圾点堆放，再由垃圾清运车及时运至垃圾场进行处理，垃圾在储存过程中应注意密闭。

### 6、项目可行性评价结论

普兰店区污水处理厂二期工程项目属于环保工程，项目运营后能够减少城市生活。污水中污染物的排放量，在保护海湾海域环境的同时，也为创造好的投资环境提供了条件，具有良好的社会效益和经济效益。

本项目的建设符合该地区发展和土地利用规划以及相关功能区划的要求，同时也符合国家的产业政策和环保政策。本项目的建设期和营运期不可避免的造成废水、废气、噪声和固体废物等污染影响，建设单位必须落实各项环保措施，尤其是废气的治理，加强施工和运行管理和跟踪监测，最大限度的减少项目对周围环境的影响。通过采取各项环保措施，本项目的污染物排放均能满足相关标准。

### 7、环评要求

（1）项目所需的配套环境保护设施，必须需严格执行“三同时”的有关规定；

（2）建设项目竣工后，建设单位应按照国务院环境保护主管部门规定的标准和程序，对配套建设的环境保护设施进行验收，编制验收报告，并依法向社会公开验收报告；

（3）项目的建设规模、采用的工艺等发生变化的，需从新编制环境影响评价报告并报主管部门审批。

### 8、建议意见

（1）建议建设单位加强中水回用率；

（2）加快建设污泥深度处理工程，确保在本项目运行前，污泥深度处理工程完成调试正式投入使用。



## 5.2 审批部门审批决定

关于《普兰店污水处理厂二期工程建设项目环境影响报告表》的批准决定  
大连市普兰店区城乡建设管理与综合执法局：

2018年4月24日，你（单位）向我局提交的《普兰店污水处理厂二期工程建设项目环境影响报告表》等相关材料，我局于2018年4月24日依法予以受理，并依法进行了审查。

经审核，你（单位）委托中国市政工程东北设计研究院总院有限公司编制《普兰店污水处理厂二期工程建设项目环境影响报告表》（以下简称报告表），编制单位资质合法有效，从事评价工作的人员证件齐全，具有合法从业资格。

报告表介绍了该项目的性质、规模、建设地点、产生的主要污染物等基本情况，即该项目总投资约8245.08万元人民币，位于普兰店海湾经济区普兰店污水处理厂内，建设总规模为6万m<sup>3</sup>/d，污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级A标准。污水处理工艺采用“预处理+AAO工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地，占地面积约3.7公顷，不新增建设用地，主要污染物是施工期扬尘、生活废水、噪声、一般固废，运营期恶臭气体、废水、噪声、一般固废等。

报告表对该项目建设期间和实施后可能造成的环境影响依法进行了分析和预测，提出了预防或者减轻不良环境影响的对策和措施，报告表的结论是，从环境影响角度项目的建设是可行的，在严格落实《报告表》提出的各项环保对策措施，加强环保管理，完善环境保护措施，严格控制污染物排放，所产生的环境影响可以得到有效控制或降低，该项目符合环境要求。

经审查，报告表编制符合《中华人民共和国环境影响评价法》，环境影响评价客观、公正、公开。依据《中华人民共和国环境影响评价法》第二十二条第一款、第三款和《中华人民共和国行政许可法》第三十八条第一款的规定，我局作出以下决定：

批准《普兰店污水处理厂二期工程建设项目环境影响报告表》。

在此基础上，项目建设及运营期间还应做好以下工作：

1、工程建设必须严格执行环境保护设施与主体工程同时设计、同时施工、同时投入使用的环境保护“三同时”制度。项目竣工后，须按要求进行建设项目

竣工环保验收，验收合格后方可运营。

2、报告表经批准后，项目的性质、规模、地点及污染防治措施等发生重大变化的，应重新报批报告表。自报告表批准之日起，超过五年方决定开工建设的，报告表应当报我局重新审核。

3、该项目应按照排污许可证相关管理规定，申请并取得排污许可证。

你（单位）取得本批准文件后，应当在该项目开工建设过程中实施本决定批准的环境影响报告表以及本批准决定中提出的环境保护对策措施，履行国家、省、市规定的相关义务。该项目“三同时”监督检查及日常监督管理工作由普兰店区环境监察大队负责。

如不服本决定，你（单位）可以在接到本决定之日起六十日内，向大连市环境保护局或者普兰店区人民政府申请行政复议，也可在接到本决定之日起六个月内直接向普兰店区人民法院提起行政诉讼。

本决定自送达之日起发生法律效力。



## 6 验收执行标准

### 6.1 大气污染物排放标准

(1) 按环评要求执行：污水处理有组织废气中  $\text{H}_2\text{S}$ 、 $\text{NH}_3$  以及臭气浓度排放执行《恶臭污染物排放标准》(GB14554-93) 表 2 标准，标准限值见表 6.1-1。无组织废气执行《城镇污水处理厂污染物排放标准》(GB18918-2002) 中“厂界(防护带边缘)废气排放最高允许浓度”的二级标准，标准限值见表 6.1-2。

表 6.1-1 恶臭污染物排放标准 单位:  $\text{mg/m}^3$

污染物名称	最高允许排放速率, $\text{kg/h}$	
	排气筒, m	标准
$\text{H}_2\text{S}$	15	0.33
$\text{NH}_3$	15	4.9
臭气浓度	15	2000 (无量纲)

表 6.1-2 城镇污水处理厂污染物排放标准 单位:  $\text{mg/m}^3$

污染物名称	无组织排放监控浓度限值	
	监控点	浓度 $\text{mg/m}^3$
$\text{H}_2\text{S}$	厂界	0.06
$\text{NH}_3$		1.5
臭气浓度		20

### 6.2 废水污染物排放标准

本项目为污水处理工程，出水水质执行《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准，具体见表 6.2-1。

表 6.2-1 城镇污水处理厂污染物排放标准 单位:  $\text{mg/m}^3$

项目	COD	SS	氨氮	$\text{BOD}_5$	TP	TN
标准值	50	10	5 (8)	10	0.5	15

### 6.3 噪声标准

本项目噪声标准执行《工业企业厂界环境噪声排放标准》(GB12348-2008) 中的 3 类标准，标准限值见表 6.3-1。

表 6.3-1 工业企业厂界环境噪声排放标准

边界外声环境功能区类别	昼间	夜间
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3	65dB (A)	55dB (A)
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## 6.4 固体废物执行标准

本项目固体废物贮存及处理管理检查参照《一般工业固体废物贮存、处置场污染控制标准》（GB18599-2001）及其修改单。



## 7 验收监测内容

### 7.1 环境保护设施调试效果

通过对各类污染物达标排放的监测，来说明环境保护设施调试效果，具体监测内容如下：

#### 7.1.1 废水监测

本项目废水监测内容见表 7.1-1，废水验收监测点位见图 7.1-1。

表 7.1-1 废水监测内容

废水名称	监测点位	监测因子	监测频次
污水处理排水	废水总排放口	COD	监测 2 天，每天 4 次
		SS	
		氨氮	
		BOD <sub>5</sub>	
		TP	
		TN	

#### 7.1.2 废气监测

本项目废气监测内容见表 7.1-2，废气验收监测点位见图 7.1-1。

表 7.1-1 废气监测内容

废气名称	监测点位	监测因子	监测频次
有组织废气	生物除臭装置排气筒	H <sub>2</sub> S	监测 2 天，每天 3 次
		NH <sub>3</sub>	
		臭气浓度	
无组织废气	厂界上风向 1 个点、下风向 3 个点	H <sub>2</sub> S	
		NH <sub>3</sub>	
		臭气浓度	



图 7.1-1 废气、废水监测点位图

7.1.3 厂界噪声监测

本项目噪声验收监测内容见表 7.1-3，噪声验收监测点位见图 7.1-2。

表 7.1-3 厂界噪声监测内容

类别	监测点位	监测因子	监测频次
噪声	东侧厂界外 1m	厂界噪声	监测 2 天，每天昼夜各 1 次
	南侧厂界外 1m		
	西侧厂界外 1m		
	北侧厂界外 1m		

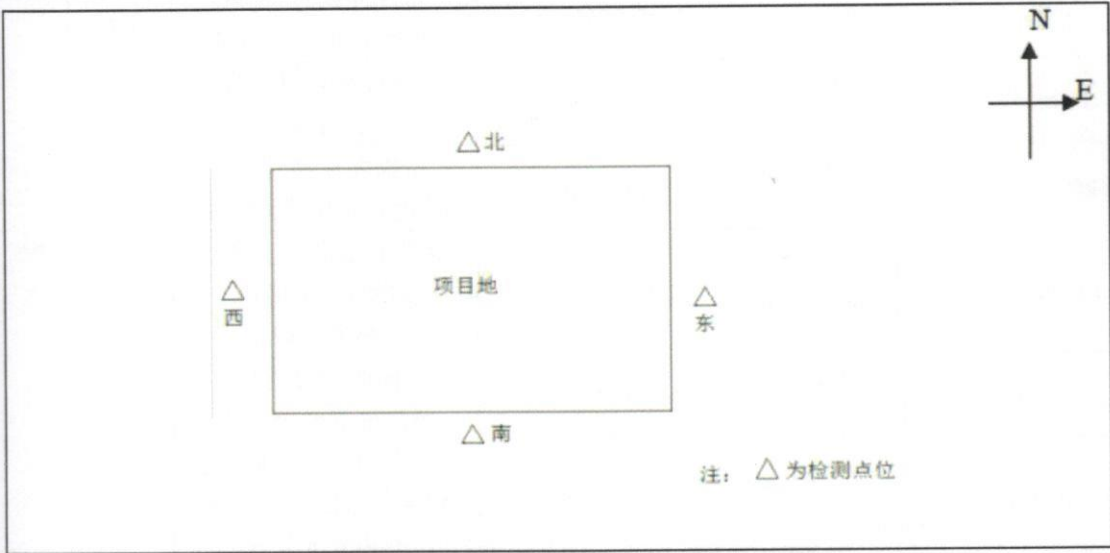


图 7.1-2 噪声监测点位图



## 8 质量保证及质量控制

### 8.1 监测分析方法

验收监测分析方法见表 8.1-1。

表 8.1-1 验收监测分析方法一览表

类别	项目	分析方法	方法依据	仪器名称	最低检出限
废气	H <sub>2</sub> S	亚甲基蓝分光光度法	《空气和废气监测分析方法》（第四版增补版）国家环保总局（2007）第三篇 第一章 十一（二）、第五篇 第四章 十（三）	ADS-2062 智能综合采样器 721G 可见分光光度计	0.001mg/m <sup>3</sup> 0.01mg/m <sup>3</sup>
	NH <sub>3</sub>	环境空气和废气氨的测定 纳氏试剂分光光度法	HJ 533-2009		0.01mg/m <sup>3</sup> 0.25mg/m <sup>3</sup>
	臭气浓度	空气质量 恶臭的测定 三点比较式臭袋法	GB/T 14675-1993	—	10（无量纲）
噪声	厂界噪声	《工业企业厂界环境噪声排放标准》	GB12348-2008	多功能声级计 AWA5680 声校准器 AWA6221B	-
废水	COD	水质 总磷的测定 钼酸铵分光光度法	HJ828-2017	滴定管	4mg/L
	SS	水质 悬浮物的测定 重量法	GB/T 11901-1989	ESJ182-4 电子分析天平	4mg/L
	氨氮	水质 氨氮的测定 纳氏试剂分光光度法	HJ 535-2009	721G 可见分光光度计	0.025mg/L
	BOD <sub>5</sub>	水质 五日生化需氧量(BOD <sub>5</sub> )的测定 稀释与接种法	HJ 505-2009	SPX-II 生化培养箱	0.5mg/L
	TP	水质 总磷的测定 钼酸铵分光光度法	GB/T 11893-1989	721G 可见分光光度计	0.01mg/L
	TN	水质 总氮的测定 碱性过硫酸钾消解紫外分光光度法	HJ 636-2012	T6 新世纪紫外分光光度计	0.05mg/L

### 8.2 监测仪器

本次验收仪器及型号情况见表 8.1-1。

### 8.3 人员资质

大连京诚盛宏源检测技术有限公司目前已经通过辽宁省质量技术监督局的资质审核,并取得 CMA 资质(证书编号: 16061205B035),资质证书见附件 6。

验收监测采样和分析人员均通过岗前培训,考核合格,持证上岗。

### 8.4 监测分析过程质量保证和质量控制

监测质量控制和质量保证按照《检验检测机构资质认定评审准则》(国认实(2016) 33 号)及大连京诚盛宏源检测技术有限公司相关管理体系文件中的有关规定进行。

#### 8.4.1 验收监测期间工况

验收监测期间,本项目运营阶段工况稳定,污水处理量为 50000m<sup>3</sup>/a,处理能力达到 83.3%,环境保护设施运行正常。

#### 8.4.2 监测点位

根据环评报告表及相关的技术规范,合理布设监测点位,以保证各监测点位布设的科学性和可比性。

#### 8.4.3 气体监测

废气监测仪器均符合国家有关标准或技术要求,仪器经计量部门检定合格,并在检定有效期内使用,监测前对使用的仪器均进行校准,采样和分析过程严格按照《固定污染源排气中颗粒物测定与气态污染物采样方法》(GB/T16157-1996)、《空气和废气监测分析方法》(第四版)以及《大气污染物无组织排放监测技术导则》(HJ/T 55-2000)中相关要求执行。

#### 8.4.4 噪声监测

噪声监测仪器均符合国家有关标准或技术要求,仪器经计量部门检定合格,并在检定有效期内使用,监测前后对使用的仪器均进行校准,监测过程严格按照《工业企业厂界环境噪声排放标准》(GB12348-2008)、《环境噪声监测技术



规范 噪声测量值修正》（HJ706-2014）中规定方法执行。

#### 8.4.5 水质监测

水质监测仪器均符合国家有关标准或技术要求，仪器经计量部门检定合格，并在检定有效期内使用，监测过程中严格按照水质的各项指标标准采样方法严格执行。采样过程中严格按照《水质采样样品的保存和管理 技术规定》（HJ493-2009）、《水质采样技术指导》（HJ 494-2009）、《地表水和污水监测技术规范》（HJ/T91-2002）以及《水和废水监测分析方法》（第四版）中相关要求执行。

## 9 验收监测结果

### 9.1 废气监测结果与评价

由于实际监测过程中,废气进口不具备监测条件,无法在进口进行监测,故无法得出处理效率,本次验收仅针对出口处废气中污染物的排放浓度进行监测和达标分析。

#### 9.1.1 有组织废气监测结果与评价

##### 9.1.1.1 有组织废气监测结果

###### (1) 监测结果

本项目污水处理废气验收监测结果见表 9.1-1。

表 9.1-1 污水处理废气监测结果

监测日期		2018.12.03			2018.12.04		
监测项目		生物除臭 1#排气筒					
		1	2	3	1	2	3
氨	排放浓度 (mg/m <sup>3</sup> )	0.55	0.60	0.56	0.50	0.54	0.53
	排放速率 (kg/h)	8.8×10 <sup>-3</sup>	1.0×10 <sup>-2</sup>	9.5×10 <sup>-3</sup>	8.5×10 <sup>-3</sup>	8.6×10 <sup>-3</sup>	8.5×10 <sup>-3</sup>
硫化氢	排放浓度 (mg/m <sup>3</sup> )	0.12	0.11	0.10	0.14	0.16	0.13
	排放速率 (kg/h)	1.9×10 <sup>-3</sup>	1.9×10 <sup>-3</sup>	1.7×10 <sup>-3</sup>	2.4×10 <sup>-3</sup>	2.6×10 <sup>-3</sup>	2.1×10 <sup>-3</sup>
臭气浓度	排放浓度 (无量纲)	163	160	152	144	150	138
	排放速率 (kg/h)	-	-	-	-	-	-

##### 9.1.1.2 有组织废气污染物监测结果评价

通过两天的监测结果表明:

###### 污水处理废气

根据生物除臭 1#排气筒连续两天排放废气监测结果:氨浓度最大值为 0.60mg/m<sup>3</sup>,最大速率为 1.0×10<sup>-2</sup>kg/h,小于标准限值 4.9kg/h;硫化氢浓度最大值为 0.16mg/m<sup>3</sup>,最大速率为 2.6×10<sup>-3</sup>kg/h,小于标准限值 0.33kg/h;臭气浓度最大值为 163,小于标准限值 2000。因此,本项目污水处理废气排放符合《恶臭污染物排放标准》(GB14554-93)表 2 标准。

本项目为污水处理装置全年运行,年平均运行时间为 8760h。



根据监测结果,氨排放速率最大值为  $1.0 \times 10^{-2} \text{kg/h}$ ,经核算本项目污水处理废气中氨年排放量约为 87.6kg;硫化氢排放速率最大值为  $2.6 \times 10^{-3} \text{kg/h}$ ,经核算本项目污水处理废气中硫化氢年排放量约为 22.78kg;

## 9.1.2 无组织废气监测结果与评价

### 9.1.2.1 无组织废气监测结果

本项目无组织废气验收监测结果见表 9.1-2。

表 9.1-2 无组织废气监测结果

采样日期		2018.12.03			
检测结果		上风向 1#	下风向 2#	下风向 3#	下风向 4#
采样时间					
氨 ( $\text{mg/m}^3$ )	09:00	0.08	0.14	0.11	0.11
	10:00	0.10	0.23	0.11	0.12
	11:00	0.12	0.27	0.14	0.15
硫化氢 ( $\text{mg/m}^3$ )	09:00	0.002	0.002	0.002	0.001
	10:00	0.002	0.002	0.002	0.001
	11:00	0.002	0.002	0.002	0.002
臭气浓度* (无量纲)	09:00	<10	11	12	10
	10:00	<10	10	13	12
	11:00	<10	14	11	12
采样日期		2018.12.04			
检测结果		上风向 1#	下风向 2#	下风向 3#	下风向 4#
采样时间					
氨 ( $\text{mg/m}^3$ )	09:00	0.01	0.17	0.12	0.09
	10:00	0.10	0.20	0.09	0.14
	11:00	0.11	0.25	0.11	0.16
硫化氢 ( $\text{mg/m}^3$ )	09:00	0.002	0.002	0.003	0.002
	10:00	0.002	0.002	0.002	0.001
	11:00	0.002	0.002	0.002	0.001
臭气浓度* (无量纲)	09:00	<10	11	12	10
	10:00	<10	14	13	11

	11:00	<10	11	10	12
备注	检测结果中“L”表示结果低于检出限，数值为该项目检出限。				

### 9.1.2.2 无组织废气污染物监测结果评价

根据连续两天的无组织废气监测结果可知，本项目厂界氨无组织排放最高点浓度为  $0.27\text{mg}/\text{m}^3$ ，小于《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带边缘）废气排放最高允许浓度”的二级标准  $1.5\text{mg}/\text{m}^3$  的限值要求；厂界硫化氢无组织排放最高点浓度为  $0.003\text{mg}/\text{m}^3$ ，小于《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带边缘）废气排放最高允许浓度”的二级标准  $0.06\text{mg}/\text{m}^3$  的限值要求；厂界臭气浓度无组织排放最高点浓度为 14，小于《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带边缘）废气排放最高允许浓度”的二级标准 20 的限值要求。

## 9.2 废水监测结果与评价

### （1）废水监测结果

本项目厂区污水站进、出水口废水监测结果见表 9.2-1。

表 9.2-1 废水监测结果

采样日期		2018.12.03							
检测项目	计量单位	生产废水进口				废水总排口			
		9:00	10:00	11:00	12:00	9:00	10:00	11:00	12:00
COD	mg/L	420	419	418	417	29	30	31	32
氨氮	mg/L	1.41	1.39	1.43	1.47	0.043	0.037	0.054	0.027
悬浮物	mg/L	556	550	552	558	8	7	6	5
总氮	mg/L	39.1	38.7	39.3	38.5	12.8	12.4	11.7	12.2
BOD <sub>5</sub>	mg/L	148	144	140	136	9.7	9.8	8.9	9.5
总磷	mg/L	1.41	1.42	1.39	1.40	0.08	0.09	0.10	0.11
采样日期		2018.12.04							
检测项目	计量单位	生产废水进口				废水总排口			
		9:00	10:00	11:00	12:00	9:00	10:00	11:00	12:00
COD	mg/L	421	420	429	415	31	32	35	34



氨氮	mg/L	1.40	1.35	1.37	1.36	未检出	未检出	未检出	未检出
悬浮物	mg/L	554	552	554	556	7	9	8	5
总氮	mg/L	38.9	39.2	38.6	38.7	11.9	11.8	11.6	12.0
BOD <sub>5</sub>	mg/L	152	147	143	139	9.6	8.9	9.6	9.7
总磷	mg/L	1.43	1.45	1.46	1.49	0.09	0.10	0.12	0.09
备注	检测结果中“L”表示结果低于检出限，数值为该项目检出限。								

## (2) 废水监测结果评价

经过对本项目污水处理工艺出水口废水的监测，废水中的化学需氧量、氨氮、悬浮物、总磷、总氮以及 BOD<sub>5</sub> 均满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准。

本项目年废水处理总量为 60000m<sup>3</sup>，根据连续 2 天监测结果显示，生产废水进口悬浮物最大排放浓度为 558mg/L，氨氮最大排放浓度为 1.47mg/L，化学需氧量最大排放浓度为 429mg/L，TN 最大排放浓度为 39.3mg/L，总磷最大排放浓度为 1.49mg/L，BOD<sub>5</sub> 最大排放浓度为 152mg/L；废水总排口悬浮物最大排放浓度为 8mg/L，氨氮最大排放浓度为 0.054mg/L，化学需氧量最大排放浓度为 35mg/L，TN 最大排放浓度为 12.8mg/L，总磷最大排放浓度为 0.12mg/L，BOD<sub>5</sub> 最大排放浓度为 9.8mg/L。经核算，本项目氨氮的年排放量约为 3.24kg，净化效率为 96.3%；化学需氧量的年排放量约为 2100kg，净化效率为 91.8%；总磷的年排放量约为 7.2kg，净化效率为 91.9%；悬浮物的年排放量约为 480kg，净化效率为 98.6%；TN 的年排放量约为 768kg，净化效率为 67.4%；BOD<sub>5</sub> 的年排放量约为 588kg，净化效率为 93.6%。

## 9.3 噪声监测结果与评价

### (1) 噪声监测结果

本项目噪声验收监测结果见表 9.3-1。

表 9.3-1 噪声监测结果

检测日期	2018.12.03			2018.12.04		
检测结果 dB(A)	检测时间	L <sub>eq</sub>	主要声源	检测时间	L <sub>eq</sub>	主要声源
检测点位						

东侧厂界外 1m	10:00	53.5	生产	10:00	54.3	生产
	22:00	41.7	生产	22:00	44.5	生产
南侧厂界外 1m	10:05	54.5	生产	10:05	54.6	生产
	22:05	42.3	生产	22:05	41.6	生产
西侧厂界外 1m	10:10	56.2	生产	10:10	56.5	生产
	22:10	43.8	生产	22:10	44.1	生产
北侧厂界外 1m	10:15	55.6	生产	10:15	55.5	生产
	22:15	42.9	生产	22:15	43.5	生产
备注	测点噪声测量值小于相应噪声排放标准的限值时, 依据《环境噪声监测技术规范 噪声测量修正》(HJ706-2014) 6.1 的规定, 可以不进行背景噪声的测量及修正。					

## (2) 噪声检测结果评价

监测结果表明本项目建成投入生产后, 公司厂界噪声符合《工业企业厂界环境噪声排放标准》(GB12348-2008) 中的 3 类标准, 昼间 65dB(A), 夜间 55dB(A)。

## 9.4 固体废物情况

一般固体废物: 栅渣产生量为 3153.6t/a, 沉砂产生量为 9.86t/a, 委托普兰店日洁环境清洁有限公司进行处理; 污泥产生量为 6416t/a, 污泥委托送至夏家河污泥处理厂进行处理, 待厂区内的污泥深度处理工程运行后自行处理, 处理后送至普兰店垃圾填埋场进行填埋; 生活垃圾产生量为 3.65t, 收集后由环卫部门及时清运, 避免造成二次污染。



## 10 验收监测结论

### 10.1 环保设施调试效果

#### 10.1.1 废水验收监测结果及达标情况

根据验收监测结果,本项目污水处理工艺出水口废水的监测,废水中的化学需氧量、氨氮、悬浮物、总磷、总氮以及  $BOD_5$  均满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 的一级 A 标准。

#### 10.1.2 废气验收监测结果及达标情况

根据验收监测结果,本项目有组织废气中氨、硫化氢、臭气浓度排放均符合《恶臭污染物排放标准》(GB14554-93) 表 2 标准;无组织废气中氨、硫化氢、臭气浓度均满足《城镇污水处理厂污染物排放标准》(GB18918-2002) 中“厂界(防护带边缘)废气排放最高允许浓度”的二级标准 20 的限值要求。本项目产生的废气皆满足环评及其批复中的要求。

#### 10.1.3 厂界噪声验收监测结果及达标情况

根据验收监测结果,厂界噪声能够满足《工业企业厂界环境噪声排放标准》(GB12348-2008) 中 3 类标准要求,满足环评及其批复中的要求。

#### 10.1.4 固体废物验收监测结果及达标情况

根据现场验收调查,一般工业固体废物栅渣和沉砂委托普兰店日洁环境清洁有限公司进行处理;污泥委托送至夏家河污泥处理厂进行处理,待厂区内的污泥深度处理工程运行后自行处理,处理后送至普兰店垃圾填埋场进行填埋;生活垃圾收集后由环卫部门及时清运,避免造成二次污染。

### 10.2 综合结论

本项目为普兰店污水处理厂二期工程,位于海湾经济区普兰店污水处理厂内,建设总规模为 6 万  $m^3/d$ ,污水处理厂设计出水水质满足《城镇污水处理厂污染

物排放标准》（GB18918-2002）的一级 A 标准。本工程利用现状污水处理厂厂区预留用地，占地面积约为 3.7 公顷，不新增建设用地，总投资 8245.08 万元。本次竣工环境保护验收范围为普兰店污水处理厂二期工程环境保护措施及设施运行情况。本项目建设规模与环评及其批复基本一致，未发生重大变更。

经核实本建设项目环境保护设施未存在以下情形：

（一）未按环境影响报告书（表）及其审批部门审批决定要求建成环境保护设施，或者环境保护设施不能与主体工程同时投产或者使用的；

（二）污染物排放不符合国家和地方相关标准、环境影响报告书（表）及其审批部门审批决定或者重点污染物排放总量控制指标要求的；

（三）环境影响报告书（表）经批准后，该建设项目的性质、规模、地点、采用的生产工艺或者防治污染、防止生态破坏的措施发生重大变动，建设单位未重新报批环境影响报告书（表）或者环境影响报告书（表）未经批准的；

（四）建设过程中造成重大环境污染未治理完成，或者造成重大生态破坏未恢复的；

（五）纳入排污许可管理的建设项目，无证排污或者不按证排污的；

（六）分期建设、分期投入生产或者使用依法应当分期验收的建设项目，其分期建设、分期投入生产或者使用的环境保护设施防治环境污染和生态破坏的能力不能满足其相应主体工程需要的；

（七）建设单位因该建设项目违反国家和地方环境保护法律法规受到处罚，被责令改正，尚未改正完成的；

（八）验收报告的基础资料数据明显不实，内容存在重大缺项、遗漏，或者验收结论不明确、不合理的；

（九）其他环境保护法律法规规章等规定不得通过环境保护验收的。

验收期间各环保设施运行正常，污染物均达标排放，满足环评及其批复中的要求。综上，普兰店污水处理厂二期工程可以通过竣工环境保护验收。



## 11 建设项目环境保护“三同时”竣工验收登记表

# 建设项目环境保护“三同时”竣工验收登记表

填表单位（盖章）：大连东达环境集团普兰店水务有限公司

填表人（签字）：王玺盛

项目经办人（签字）：王玺盛

项目名称		普兰店污水处理厂二期工程		项目代码		无		建设地点		海湾经济区普兰店污水处理厂内	
行业类别（分类管理名录）		96生活污水处理		建设性质				新建 <input checked="" type="checkbox"/> 改扩建 <input type="checkbox"/> 技术改造 <input type="checkbox"/>			
设计生产能力		污水处理能力60000m³/d		实际生产能力		污水处理能力60000m³/d		环评单位		中国市政工程东北设计研究院有限公司	
环评文件审批机关		大连市普兰店区环境保护局		审批文号		普环评准字[2018]00111号		环评文件类型		报告表	
开工日期		2018年5月		竣工日期		2018年11月		排污许可证申领时间			
环保设施设计单位		大连东达环保科技有限公司		环保设施施工单位		大连东达环保科技有限公司		本工程排污许可证编号			
验收单位		大连东达环保科技有限公司		环保设施监测单位		大连东达环保科技有限公司		验收监测时工况		处理污水50000m³/d，达产83.3%	
投资总概算（万元）		8245.08		环保投资总概算（万元）		338		所占比例（%）		4.01	
实际总投资		8245.08		实际环保投资（万元）		338		所占比例（%）		4.01	
废水治理（万元）		5		废气治理（万元）		130		噪声治理（万元）		10	
新增废水处理设施能力		60000m³/d		新增废气处理设施能力		15		绿化及生态（万元）		其他（万元）	
运营单位		大连东达环境集团普兰店水务有限公司		运营单位统一社会信用代码		91210282787334230X		年平均工作时		365天	
污染物		原有排放		本期工程实际		本期工程核定排		全厂实际排放总量		全厂核定排放总量	
废水		量(1)		排放量(6)		放量(7)		(9)		(10)	
化学需氧量		35		2100kg/a				/			
氨氮		0.054		3.24kg/a				/			
BOD <sub>5</sub>		9.8		588kg/a				/			
悬浮物		8		480kg/a				/			
TN		12.8		768kg/a				/			
TP		0.12		7.2kg/a				/			
废气		/		1.541				/			
H <sub>2</sub> S		0.16mg/m³		0.0026kg/a				/			
NH <sub>3</sub>		0.6mg/m³		87.6kg/a				/			
工业固体废物				0				0			
与项目有关的其他特征污染物											

注：1、排放增减量：（+）表示增加，（-）表示减少。2、(12)=(6)+(8)-(11)，(9)=(4)-(5)+(8)-(11)+(1)。3、计量单位：废水排放量——万吨/年；废气排放量——万标立方米/年；工业固体废物排放量——万吨/年；水污染物排放浓度——毫克/升

## 附件 1 关于《普兰店污水处理厂二期工程建设项目环境影响报告表》的批准决定

# 大连市普兰店区环境保护局文件

普环评准字[2018]0011号

### 关于普兰店污水处理厂二期工程建设项目 环境影响报告表 批准决定

大连市普兰店区城乡建设管理与综合执法局：

2018年4月24日，你（单位）向我局提交的《普兰店污水处理厂二期工程建设项目环境影响报告表》、《报批环境影响评价文件申请书》等相关材料，我局于2018年4月24日依法予以受理，并依法进行了审查。

经审查，你（单位）委托中国市政工程东北设计研究总院有限公司编制《普兰店污水处理厂二期工程建设项目环境影响报告表》（以下简称报告表），编制单位资质合法有效，从事评价工作的人员证件齐全，具有合法从业资格。

报告表介绍了该项目的性质、规模、建设地点、产生的主要污染物等基本情况。即该项目总投资约8245.08万元人民币，位于普兰店海湾经济区普兰店污水处理厂内，建设总规模为6万 $m^3/d$ ，污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级A标准。污水处理工艺采用“预处理+AAO工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地，占地面积约为3.7公顷，不新增建设用地。主要污染物是施工期扬尘、生活废水、噪声、一般固废，运营期恶臭气体、废水、噪声、一般固废等。

报告表对该项目建设期间和实施后可能造成的环境影响依



法进行了分析和预测,提出了预防或者减轻不良环境影响的对策和措施。报告表的结论是,从环境影响角度项目的建设是可行的,在严格落实本《报告表》提出的各项环保对策措施,加强环保管理,完善环境保护措施,严格控制污染物排放,所产生的环境影响可以得到有效控制或降低,该项目符合环境要求。

经审查,报告表编制符合《中华人民共和国环境影响评价法》,环境影响评价客观、公正、公开。依据《中华人民共和国环境影响评价法》第二十二条第一款、第三款和《中华人民共和国行政许可法》第三十八条第一款的规定,我局作出以下决定:

批准《普兰店污水处理厂二期工程建设项目环境影响报告表》。

在此基础上,项目建设及运营期间还应做好以下工作:

1、工程建设必须严格执行环境保护设施与主体工程同时设计,同时施工,同时投入使用的环境保护“三同时”制度。项目竣工后,须按要求进行建设项目竣工环保验收,验收合格后方可运营。

2、报告表经批准后,项目的性质、规模、地点及污染防治措施等发生重大变化的,应重新报批报告表。自报告表批准之日起,超过五年方决定开工建设的,报告表应当报我局重新审核。

3、该项目应按照排污许可证相关管理规定,申请并取得排污许可证。

你(单位)取得本批准文件后,应当在该项目开工建设过程中实施本决定批准的环境影响报告表以及本批准决定中提出的环境保护对策措施,履行国家、省、市规定的相关义务。该项目“三同时”监督检查及日常监督管理工作由普兰店区环境监察大队负责。

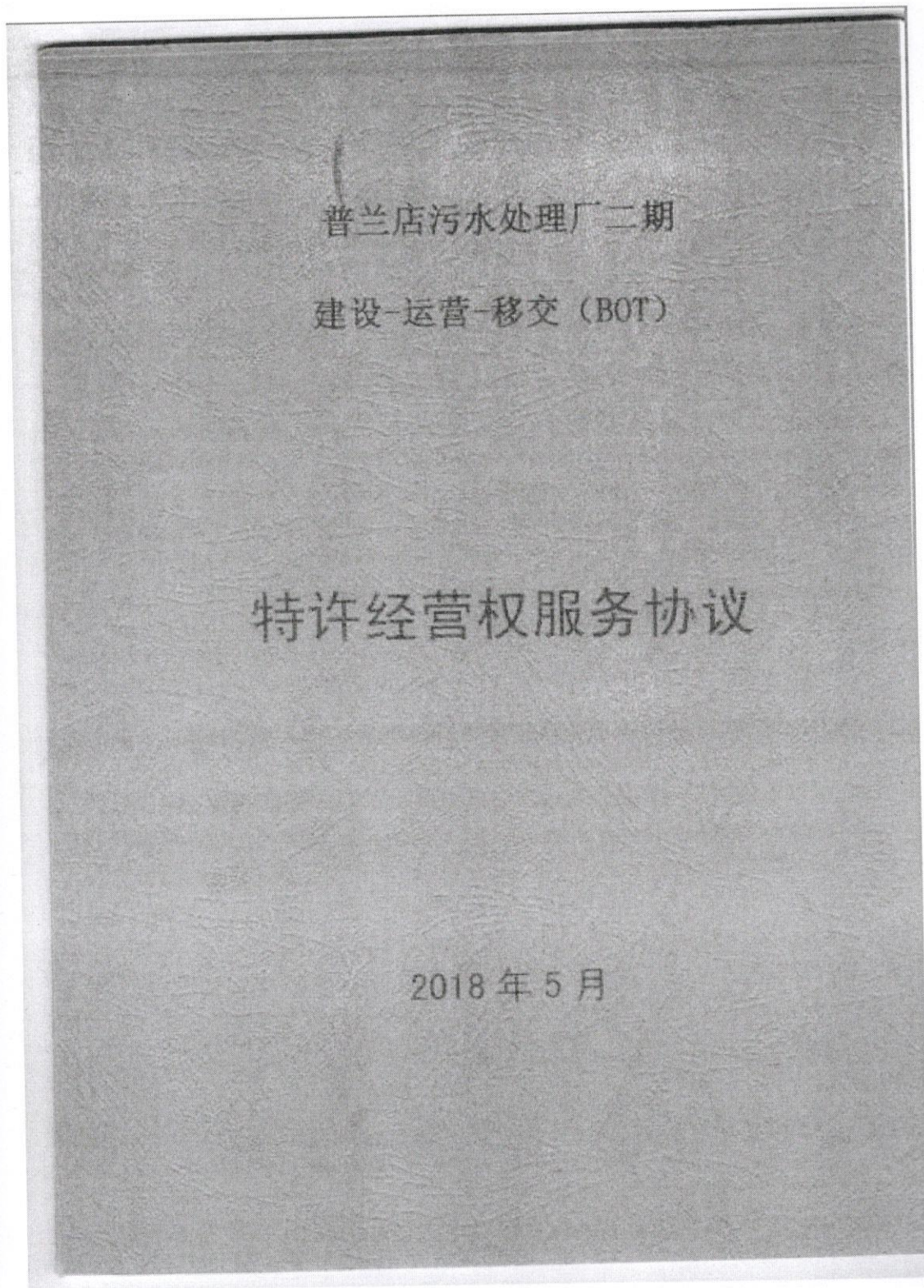
如不服本决定,你(单位)可在接到本决定之日起六十日内向大连市环境保护局或者普兰店区人民政府申请行政复议,也可在接到本决定之日起六个月内直接向普兰店区人民法院提起行政诉讼。

本决定自送达之日起发生法律效力。





附件 2 建设单位变更合同



## 第一章 总则

甲方：大连市普兰店区城乡建设管理与综合执法局

地址：大连市普兰店区南山路 338 号

单位负责人：王天成 职务：局长

乙方：大连东达环境集团普兰店水务有限公司

地址：普兰店区海湾工业区普兰店污水处理厂

法定代表人：安雪松 职务：总裁

鉴于：

- (1) 大连市普兰店区人民政府授权甲方通过公开招标方式确定北京光大水务投资管理有限公司为普兰店污水处理厂（二期）（以下简称“本项目”）特许经营权人，双方于 2018 年 月 日签订了《普兰店污水处理厂（二期）特许经营权协议》。
- (2) 根据《普兰店污水处理厂（二期）特许经营权协议》的约定，大连东达环境集团普兰店水务有限公司在大连市普兰店区控股的乙方作为项目公司，具体负责实施项目的投融资、建设、运营及项目移交等事项。

为规范城市污水处理特许经营行为，维护合同双方的合法权益，甲、乙双方根据《行政许可法》、《合同法》、《基础设施和公用事业特许经营管理办法》、《城镇排水与污水处理条例》等法律法规的规定，依据甲方与北京光大水务投资管理有限公司公司签订的《普兰店污水处理厂（二期）特许经营权协议》，就本项目设计、建设、运营维护、移交等内容签订本协议，作为《普兰店污水处理厂（二期）特许经营权协议》的实施文件，以资共同遵守。

双方达成如下条款：



### 第十三章 其它

#### 第 26 条 其他

##### 26.1 通知

本协议项下的通知，通过专人递交，快递，邮寄，传真或电子邮件按下述地址送至或发至各方：

##### (1) — 甲方：

地址：

邮编：

收件人：

传真：

电子信箱：

##### (2) —

乙方：大连东达环境集团普兰店水务有限公司

地址：普兰店区海湾工业区普兰店污水处理厂

邮编：116000

传真：0411-83174369

电子信箱：wangwei@ebwater.com

联系人：王薇

一方的收件人地址、电传传真号码或电子邮箱若有变更应及时以书面形式通知另一方，下述情况应视为已送达：

- a. 如用信件进行任何通讯，在由专人递交、快递或邮寄方式(挂号、要求回执)发送至上述地址时；和
- b. 如用传真或电子邮件形式，在准确发送至上述传真号码或电子邮箱时。

##### 26.2 不放弃

26.2.1 任何一方均不被视为放弃本协议中的任何条款，除非一方以书面形式作出放弃。

26.2.2 任何一方未坚持严格履行本协议中的任何条款，或未行使其本协议中规定的任何权利，均不应被视为对任何上述条款的放弃或对今后行使任何上述权利的放弃。

##### 26.3 合同份数及相关文件

本协议正本一式十二份，甲方六份、乙方六份。

本协议由双方各自正式授权的代表在其签名下注明的日期签署，双方愿受本协议的法律约束。

本协议及依据本协议签订的补充协议、附件、备忘录、通知函均有法律约束力，与本协议有同等的法律效力。

26.4 生效日期

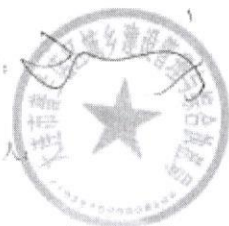
本协议经双方的代表签名，注明签署日期，加盖双方印章后生效。

26.5 本协议与《普兰店污水处理厂（二期）特许经营权协议》共同作为本项目的法律文件，具有同等约束力。

甲方：

签署人

日期： 年 月 日



日期： 年 月 日



### 授权书

大连市普兰店区人民政府授权大连市普兰店区城乡建设管理与综合执法局，与北京光大水务投资管理有限公司公司签订《普兰店污水处理厂二期建设-运营-移交（BOT）项目特许经营权服务协议》，并作为特许经营权服务协议甲方履行义务、责任及违约责任。

特此授权



### 授权书

普兰店区人民政府授权大连市普兰店区财政金融局，与大连东达环境集团普兰店水务有限公司公司签订《普兰店污水处理厂二期建设-运营-移交（BOT）项目特许经营权服务协议》中附件7《普兰店污水处理厂（二期）特许经营 BOT 项目设施运营服务费用合同》，并作为服务费用合同甲方履行污水处理费付费义务、责任及违约责任。

特此授权



普兰店污水处理厂二期工程招标文件

甲方：大连市普兰店区城乡建设管理与综合执法局

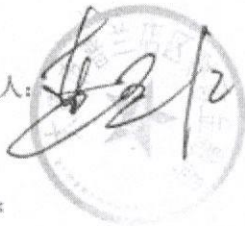
签署人：



日期：

乙方：大连市普兰店区财政金融局

签署人：



日期：

丙方：大连东达环境集团普兰店水务有限公司

签署人：



日期：



普兰店污水处理厂二期

建设-运营-移交 (BOT)

特许经营权协议

2018 年 5 月



## 第一章 总则

甲方：大连市普兰店区城乡建设管理与综合执法局

地址：大连市普兰店区南山路338号

单位负责人：王天成 职务：局长

乙方：北京光大水务投资管理有限公司

地址：北京市北京经济技术开发区宏达北路10号1栋6层618室

法定代表人：安雪松 职务：总裁

鉴于：

(1)大连市普兰店区人民政府决定以特许经营 BOT 方式实施普兰店污水处理厂(二期)项目(以下简称“本项目”)。本项目已于2018年2月26日获得大连市普兰店区人民政府批准立项(文件号：普发改审批字[2018]14号)；

(2)2018年3月26日至2018年3月30日大连市普兰店区城乡建设管理与综合执法局遵循公开、公平、公正和公共利益优先的原则，对本项目以公开招标的方式，确定乙方为本项目特许经营权人。

甲、乙双方根据《行政许可法》、《合同法》、《基础设施和公用事业特许经营管理办法》、《城镇排水与污水处理条例》等法律法规，甲方根据大连市普兰店区人民政府授权与乙方就普兰店污水处理厂(二期)特许经营的相关问题签订本协议，以资共同遵守。

## 第二章 特许经营权

### 第1条 特许经营权

#### 1.1 特许经营权的授予

本协议自生效之日起，甲方向乙方授予本项目的特许经营权。

#### 1.2 特许经营主要内容

乙方在本项目服务范围及特许经营期内，享有本项目的设计、建设、运营维护、提标改造、扩建、移交以及收取运营服务费的权力。本项目特许经营服务范围为

电子信箱:

联系人:

(2) 乙方: 大连东达环境集团普兰店水务有限公司

地址: 普兰店区海湾工业区普兰店污水处理厂

邮编: 116000

传真: 0411-83174369

电子信箱: wangwei@ebwater.com

联系人: 王薇

一方的上述联系人或联系方式若有变更, 应及时以书面形式通知另一方, 否则另一方向原联系人或按原联络方式发出的通知视为已经送达。

## 第 22 条 协议的文本分数

本协议正本一式2份, 双方各执1份, 副本一式10份, 双方各执5份, 均具有同等法律效力。

## 第 23 条 协议的生效

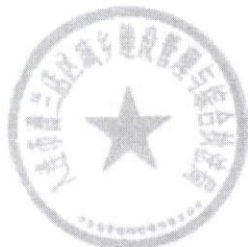
本协议经双方代表签名及加盖公章后生效。

## 第 24 条 备注

本协议未尽事宜由甲方与乙方成立的项目公司另行签订的《普兰店污水处理厂(二期)特许经营 BOT 服务协议》加以规定, 《普兰店污水处理厂(二期)特许经营 BOT 服务协议》与本协议共同作为本项目的法律文件, 具有同等约束力。

甲方:

签署人:



日期: 年 月 日

乙方:

签署人:



日期: 年 月 日



## 授权书

大连市普兰店区人民政府授权大连市普兰店区城乡建设管理与综合执法局与北京光大水务投资管理有限公司公司签订《普兰店污水处理厂二期建设-运营-移交（BOT）项目特许经营权协议》，并作为特许经营权协议甲方履行义务、责任及违约责任。

特此授权







## 附件 4 污泥处理协议

## 关于调整污泥处置及相关费用的函

大连东达环境集团普兰店水务有限公司：

依据环保部门要求及相关法律法规，你公司普兰店污水厂产出的污泥（含水率在 80%左右）不允许直接填埋，应尽快启动污泥干化设施建设，投产后干化的污泥可以运至普兰店垃圾处理厂填埋。经请示区领导同意，干化设施竣工前污泥运至东泰夏家河污泥处理厂进行无害化处理。期间，污泥处理费及运输增加费（超出《特许权协议》限定的 20 公里运距以外部分）暂由你公司垫付，待污泥干化设施正式投产后 30 个工作日内，由政府一并结算。

经与夏家河污泥处理厂协商，污泥处置费单价为 290 元/吨。经与运输单位协商，污泥运输单价为 1.1 元/吨·公里，普兰店污水厂与夏家河污泥处理厂运距为 75 公里。

大连市普兰店区城乡建设管理局综合执法局

2017 年 4 月 30 日



# 城镇污水处理厂污泥转运联单

1020

21031557

污水处理厂名称: 大连市环境科学研究所有限公司 城镇污水处理厂填写

盖章:

通讯地址: 大连市普兰店区海城工业园区

电话: 83151152

运输单位: 大连乾成物资储运有限公司

邮编: 116200

通讯地址: 大连市甘井子区海城工业园区

电话: 86511936

接受单位: 大连东泰有机固体废物处理有限公司

邮编: 116200

通讯地址:

电话:

厂内是否经过稳

邮编:

定化: 是 ☐ 否 ☒

稳定化工艺: 延时曝气 ☐

厌氧消化 ☐

堆肥 ☐

是否达到稳定指 是 ☐ 否 ☐

标:

厂内处理工艺: 自然干化 ☐

好氧堆肥 ☐

热干化 ☐

其他 ☐

污泥形态: 团块 含水率: 79.4% 数量: 290.63吨

外运目的: 中转贮存 ☐ 自然干化 ☐ 好氧堆肥 ☐ 热干化 ☐ 土地利用 ☐ 农业利用 ☐

卫生填埋 ☐ 干化焚烧 ☐ 混合焚烧 ☐ 综合利用 ☐ 其他 ☐

发运人: 张 运达地: 大连东泰有机固体废物处理有限公司 发运时间: 2018 年 10 月 1 日至 10 月 31 日

## 二、污泥运输单位填写

运输者须知: 您必须核对以上栏目事项, 当与实际情况不符时, 有权拒绝接受。

第一承运人: 大连乾成物资储运有限公司 运输日期: 2018 年 10 月 1 日至 10 月 31 日

车(船)型: 解放 牌号: 辽B 1W988 道路运输证号: 11199170

运输起点: 水 经由地: 运输终点: 大连东泰有机固体废物处理有限公司 承运人签字: 张华仁

第二承运人: 运输日期: 年 月

车(船)型: 牌号: 道路运输证号:

运输起点: 经由地: 运输终点: 运输人签字:

## 三、污泥处理接受单位填写

接受者须知: 您必须核对以上栏目事项, 当与实际情况不符时, 有权拒绝接受。

经营许可证号: 接收人: 接收日期: 年 月 日至 年 月 日

污泥处理方式: 自然干化 ☐ 热干化 ☐ 好氧堆肥 ☐ 其他 ☐

处理后污泥含水率: 是否达到稳定化指标: 是 ☐ 否 ☐

单位负责人签字: 单位盖章: 日期: 年 月

## 四、污泥处置接受单位填写

接受者须知: 您必须核对以上栏目内容, 当与实际情况不符时, 有权拒绝接受。

经营许可证号: 接收人: 大连东泰有机固体废物处理有限公司 接收日期: 2018 年 10 月 1 日至 10 月 31 日


污泥处理方式: 土地利用 ☐ 农业利用 ☐ 单独堆肥 ☐ 混合堆肥 ☐ 干化焚烧 ☐ 混合焚烧 ☐

综合利用 ☐ 其他 ☐ 日期: 2018 年 11 月


单位负责人签字: 单位盖章:

## 附件 5 应急预案备案文件

企业事业单位突发环境事件应急预案备案表

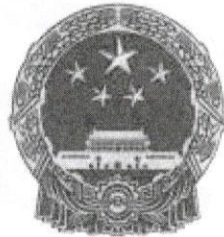
单位名称	大连东达环境集团普兰店水务有限公司	机构代码	91210282787334230X
代表人	安雪松	联系电话	0411-83153152
联系人	王薇	联系电话	15940880215
传真	0411-83174369	电子邮箱	wangwei@ebwater.com
地址	中心经度 E121° 56' 27" 中心纬度 N38° 58' 41"		
预案名称	大连东达环境集团普兰店水务有限公司二期工程突发环境事件应急预案		
风险级别	一般危险源		
<p>本单位于 2018 年 12 月 7 日签署发布了突发环境事件应急预案，备案条件具备，备案文件齐全，现报送备案。</p> <p>本单位承诺，本单位在办理备案中所提供的相关文件及其信息均经本单位确认真实，无虚假，且未隐瞒事实。</p> <div style="text-align: center;">  <p>大连东达环境集团普兰店水务有限公司（公章）</p> </div>			
预案签署人	王薇	报送时间	2018.12.10



突发环境事件应急预案备案文件目录	<p>1.突发环境事件应急预案备案表；</p> <p>2.环境应急预案及编制说明：环境应急预案（签署发布文件、环境应急预案文本）；编制说明（编制过程概述、重点内容说明、征求意见及采纳情况说明、评审情况说明）；</p> <p>3.环境风险评估报告；</p> <p>4.环境应急资源调查报告；</p> <p>5.环境应急预案评审意见；</p> <p>6.环保应急平面图。</p>		
备案意见	<p>该单位的突发环境事件应急预案备案文件已于2018年12月10日收讫，文件齐全，予以备案。</p> <div style="text-align: center;">  <p>备案受理部门（公章）2018/12/11</p> </div>		
备案编号	210282-2018-019-L		
报送单位	大连东达环境集团有限公司		
受理部门负责人	刘明华	经办人	于伟磊

## 附件 6 检测单位资质

JYJC-000785



# 检验检测机构 资质认定证书

证书编号: 16061205B035

名称: 大连京诚盛宏源检测技术有限公司

地址: 辽宁省大连经济技术开发区龙泉街9号-A

经审查, 你机构已具备国家有关法律、行政法规规定的基本条件和能力, 现予批准, 可以向社会出具具有证明作用的数据和结果, 特发此证。资质认定包括检验检测机构计量认证。

检验检测能力及授权签字人见证书附表。

你机构对外出具的检测报告或证书的法律责任由大连京诚盛宏源检测技术有限公司承担。

许可使用标志



16061205B035

发证日期: 2016年7月5日

有效期至: 2022年7月4日

发证机关: 辽宁省质量技术监督局

有效期届满三个月前, 将资质认定复评审申请上接受理机关。

本证书由国家认证认可监督管理委员会监制, 在中华人民共和国境内有效。





# 营业执照

统一社会信用代码 912102135880707117

名称	大连京诚盛宏源检测技术有限公司
类型	有限责任公司
住所	辽宁省大连经济技术开发区龙泉街9号-A
法定代表人	马廷亮
注册资本	人民币壹佰万元整
成立日期	2012年02月14日
营业期限	自2012年02月14日至2032年02月13日
经营范围	检测技术研发及相关技术咨询服务；环境检测及相关技术咨询服务。*** (依法须经批准的项目，经相关部门批准后方可开展经营活动)。



提示：应当于每年1月1日至6月30日，通过企业信用信息公示系统报送上一年度年度报告并公示。

登记机关

2015年11月1日



企业信用信息公示系统网址：

<http://gsxt.lnsg.gov.cn>

中华人民共和国国家工商行政管理总局监制

## 附件 7 委托书

# 普兰店污水处理厂二期工程 竣工环境保护验收报告委托书

大连净海环保科技有限公司：

根据《建设项目环境保护管理条例》、《建设项目竣工环境保护验收暂行办法》国环规环评（2017）4号等文件的规定，现将《普兰店污水处理厂二期工程竣工环境保护验收报告》编制工作委托给贵单位。

特此委托！

委托单位：大连东达环境集团普兰店水务有限公司

2018年11月25日





## 附件 8 监测报告

0061205B007



# 检测报告

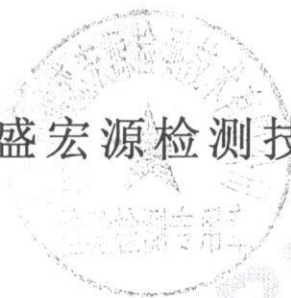
盛环检字( 2018 )第 S1130002 号

项目名称: 普兰店污水处理厂二期工程项目

委托单位: 普兰店污水处理厂

单位地址: 辽宁省大连市普兰店市

大连京诚盛宏源检测技术有限公司





## 说 明

- 1、报告无本公司检验检测专用章和骑缝章无效。
- 2、报告无编写人、审核人及授权签字人签字无效。
- 3、报告涂改无效，部分复制无效。
- 4、本检测仅对当时工况及环境状况有效。
- 5、如对检测结果有异议，应于收到检测结果之日起十五日内向本单位提出，逾期不予受理。
- 6、标注\*符号的检验项目不在 CMA 认证范围之内，委托检测。

地址：大连经济技术开发区龙泉街 9 号

邮编：116000

电话：0411-87537550

传真：0411-87537550

## General Conditions of Testing

Best Justicial Testing Technology Co., LTD. (hereinafter "the Company"), while reserving the right to decline, without giving any reason whatsoever, any request for the undertaking of a test or investigation will carry out at the request of the clients the required test or investigation subject always to the following conditions.

1. The Company only acts for the person or body originating the instructions (the "Clients"). No other party is entitled to give instructions, particularly on the scope, testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if the materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services:
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, failing which the Company shall be under no obligation to the Clients.
4. Subject to the Company's accepting the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
9. Any documents containing engagements between the Clients and third parties like contracts of sale, letters of credit, bills of lading, etc. are regarded as information for the Company only and do not affect the scope of the services or the obligations accepted by the Company.
10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company:
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of the performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or under take to discharge any duty of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceed the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling all the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



SHYJC-04-J38

报告编写人: 李 洋

报告审核人: 贺晓瑜

授权签字人: 仇兆华

签发日期: 2018 年 12 月 18 日

## General Conditions of Testing

Best Justicial Testing Technology Co., LTD. (hereinafter "the Company"), while reserving the right to decline, without giving any reason whatsoever, any request for undertaking of a test or investigation will carry out at the request of the clients the required test or investigation subject always to the following conditions.

1. The Company only acts for the person or body originating the instructions (the "Clients") No other party is entitled to give instructions, particularly on the scope, testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, in which the Company shall be under no obligation to the Clients.
4. Subject to the Company's accepting the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Client where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
9. Any documents containing engagements between the Clients and third parties like contracts of sale, letters of credit, bills of lading, etc. are regarded as information for the Company only and do not affect the scope of the services or the obligations accepted by the Company.
10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and furnish information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given in an agreement made, the Clients shall pay to the Company;
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or under take to discharge any duty or liability to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any service, to the extent that the aggregate of any such claims relating to any one service exceeds the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes and is responsible for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the results of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
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受普兰店污水处理厂委托，对普兰店污水处理厂二期工程项目进行环境检测，检测内容及结果具体如下：

### 一、技术依据

类别	检测项目	检测依据	检测方法	检出限	仪器及型号
废气	氨	HJ 533-2009	环境空气和废气 氨的测定 纳氏试剂分光光度法	0.01mg/m <sup>3</sup> 0.25mg/m <sup>3</sup>	ADS-2062 智能 综合采样器 721G 可见分光 光度计
	硫化氢	《空气和废气监测 分析方法》（第四 版增补版）国家环 保总局（2007）第 三篇 第一章 十一 （二）、第五篇 第 四章 十（三）	亚甲基蓝分光光度法	0.001mg/m <sup>3</sup> 0.01mg/m <sup>3</sup>	
	臭气浓度	GB/T 14675-1993	空气质量 恶臭的测定 三点比较式臭袋法	10（无量纲）	——
废水	总磷	GB/T 11893-1989	水质 总磷的测定 钼酸铵分光光度法	0.01mg/L	721G 可见分 光光度计
	总氮	HJ 636-2012	水质 总氮的测定 碱性过硫酸钾消解紫外 分光光度法	0.05mg/L	T6 新世纪紫外 分光光度计
	COD	HJ828-2017	水质 化学需氧量的测定 重铬酸盐法	4mg/L	滴定管
	BOD <sub>5</sub>	HJ 505-2009	水质 五日生化需氧量 (BOD <sub>5</sub> )的测定 稀释与接种法	0.5mg/L	SPX-II 生化培养箱
	氨氮	HJ 535-2009	水质 氨氮的测定 纳氏试剂分光光度法	0.025mg/L	721G 可见分 光光度计
	悬浮物	GB/T 11901-1989	水质 悬浮物的测定 重量法	4mg/L	ESJ182-4 电子 分析天平
噪声	厂界噪声	GB12348-2008	工业企业厂界噪声排 放标准	——	AWA5680 型 多功能声级计 声校准器 AWA6221B
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  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
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10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
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## 二、检测结果

### (一)有组织废气检测结果

检测日期	检测点位	采样时间	检测项目	浓度 检测结果 mg/m <sup>3</sup>	速率 检测结果 kg/h
2018.12.03	污水处理 废气排气 筒出口	09:00	氨	0.55	$8.8 \times 10^{-3}$
			硫化氢	0.12	$1.9 \times 10^{-3}$
			臭气浓度*	163	——
		10:00	氨	0.60	$1.0 \times 10^{-2}$
			硫化氢	0.11	$1.9 \times 10^{-3}$
			臭气浓度*	160	——
		11:00	氨	0.56	$9.5 \times 10^{-3}$
			硫化氢	0.10	$1.7 \times 10^{-3}$
			臭气浓度*	152	——
2018.12.04	污水处理 废气排气 筒出口	09:00	氨	0.50	$8.5 \times 10^{-3}$
			硫化氢	0.14	$2.4 \times 10^{-3}$
			臭气浓度*	144	——
		10:00	氨	0.54	$8.6 \times 10^{-3}$
			硫化氢	0.16	$2.6 \times 10^{-3}$
			臭气浓度*	150	——
		11:00	氨	0.53	$8.5 \times 10^{-3}$
			硫化氢	0.13	$2.1 \times 10^{-3}$
			臭气浓度*	138	——

## General Conditions of Testing

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3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
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  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, in which the Company shall be under no obligation to the Clients.
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(二) 无组织废气检测结果

采样日期	检测点位	采样时间	检测项目/检测结果		
			氨 (mg/m <sup>3</sup> )	硫化氢 (mg/m <sup>3</sup> )	臭气浓度* (无量纲)
2018.12.03	1#上风向北	09:00	0.08	0.002	<10
		10:00	0.10	0.002	<10
		11:00	0.12	0.002	<10
	2#下风向东南	09:00	0.14	0.002	11
		10:00	0.23	0.002	10
		11:00	0.27	0.002	14
	3#下风向南	09:00	0.11	0.002	12
		10:00	0.11	0.002	13
		11:00	0.14	0.002	11
	4#下风向西南	09:00	0.11	0.001	10
		10:00	0.12	0.001	12
		11:00	0.15	0.002	12
2018.12.04	1#上风向北	09:00	0.01	0.002	<10
		10:00	0.10	0.002	<10
		11:00	0.11	0.002	<10
	2#下风向东南	09:00	0.17	0.002	11
		10:00	0.20	0.002	14
		11:00	0.25	0.002	11
	3#下风向南	09:00	0.12	0.003	12
		10:00	0.09	0.002	13
		11:00	0.11	0.002	10
	4#下风向西南	09:00	0.09	0.002	10
		10:00	0.14	0.001	11
		11:00	0.16	0.001	12



## General Conditions of Testing

Best Justicial Testing Technology Co., LTD. (hereinafter "the Company"), while reserving the right to decline, without giving any reason whatsoever, any request for undertaking of a test or investigation will carry out at the request of the clients the required test or investigation subject always to the following conditions.

1. The Company only acts for the person or body originating the instructions (the "Clients") No other party is entitled to give instructions, particularly on the scope testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if the materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, in which the Company shall be under no obligation to the Clients.
4. Subject to the Company's accepting the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
9. Any documents containing engagements between the Clients and third parties like contracts of sale, letters of credit, bills of lading, etc. are regarded as information for the Company only and do not affect the scope of the services or the obligations accepted by the Company.
10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company:
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or undertake to discharge any duty of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any service to the extent that the aggregate of any such claims relating to any one service exceeds the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes full responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



### (三) 废水检测结果

检测项目	检测点位/采样日期/检测结果							
	1#废水处理设施进口							
	2018.12.03				2018.12.04			
	09:00	10:00	11:00	12:00	09:00	10:00	11:00	12:00
总磷 (mg/L)	1.41	1.42	1.39	1.40	1.43	1.45	1.46	1.49
COD (mg/L)	420	419	418	417	421	420	429	415
氨氮 (mg/L)	1.41	1.39	1.43	1.47	1.40	1.35	1.37	1.36
总氮 (mg/L)	39.1	38.7	39.3	38.5	38.9	39.2	38.6	38.7
悬浮物 (mg/L)	556	550	552	558	554	552	554	556
BOD <sub>5</sub> (mg/L)	148	144	140	136	152	147	143	139
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### General Conditions of Testing

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1. The Company only acts for the person or body originating the instructions (the "Clients"). No other party is entitled to give instructions, particularly on the scope testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services:
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, for which the Company shall be under no obligation to the Clients.
4. Subject to the Company's acceptance of the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, snow or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
9. Any documents containing engagements between the Clients and third parties like contracts of sale, letters of credit, bills of lading, etc. are regarded as information for the Company only and do not affect the scope of the services or the obligations accepted by the Company.
10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company:
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of the performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or under take to discharge any duty or liability to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceed the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
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25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



(三) 废水检测结果

检测项目	检测点位/采样日期/检测结果							
	2#废水总排口							
	2018.12.03				2018.12.04			
	09:00	10:00	11:00	12:00	09:00	10:00	11:00	12:00
总磷 (mg/L)	0.08	0.09	0.10	0.11	0.09	0.10	0.12	0.09
COD (mg/L)	29	30	31	32	31	32	35	34
氨氮 (mg/L)	0.043	0.037	0.054	0.027	未检出	未检出	未检出	未检出
总氮 (mg/L)	12.8	12.4	11.7	12.2	11.9	11.8	11.6	12.0
悬浮物 (mg/L)	8	7	6	5	7	9	8	5
BOD <sub>5</sub> (mg/L)	9.7	9.8	8.9	9.5	9.6	8.9	9.6	9.7

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## General Conditions of Testing

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2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services:
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, for which the Company shall be under no obligation to the Clients.
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5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
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11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or agreement made, the Clients shall pay to the Company;
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or undertake to discharge any duty of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceeds the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling all the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



(四) 噪声检测结果

检测日期/检测点位		检测因子/检测结果			
		Leq[dB(A)]			
		昼间		夜间	
2018.12.03	1#厂界东	10:00	53.5	22:00	41.7
	2#厂界南	10:05	54.5	22:05	42.3
	3#厂界西	10:10	56.2	22:10	43.8
	4#厂界北	10:15	55.6	22:15	42.9
2018.12.04	1#厂界东	10:00	54.3	22:00	42.5
	2#厂界南	10:05	54.6	22:05	41.6
	3#厂界西	10:10	56.5	22:10	44.1
	4#厂界北	10:15	55.5	22:15	43.5
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3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, failing which the Company shall be under no obligation to the Clients.
4. Subject to the Company's accepting the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients or where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is submitted may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The report will refer only to the sample tested and will not apply to the bulk, unless the sampling has been carried out by the Company and is stated as such in the Report.
9. Any documents containing engagements between the Clients and third parties like contracts of sale, letters of credit, bills of lading, etc. are regarded as information for the Company only and do not affect the scope of the services or the obligations accepted by the Company.
10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods can be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of any loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company;
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of the performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or undertake to discharge any duty of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceed the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling all the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



### 三、有组织废气检测期间参数统计表

采样日期	采样点位	采样时间	温度 (°C)	湿度 (%RH)	大气压 (kPa)	烟气 流速 (m/s)	排气量 (m³/h)	排气筒 高度 (m)
2018.12.03	污水处理 废气排气 筒出口	09:00	7	3.0	102.5	7.4	1.6×10 <sup>4</sup>	15
		10:00	8	3.0	102.4	7.6	1.7×10 <sup>4</sup>	
		11:00	9	3.0	102.4	7.7	1.7×10 <sup>4</sup>	
2018.12.04	污水处理 废气排气 筒出口	09:00	5	3.0	102.5	7.6	1.7×10 <sup>4</sup>	
		10:00	5	3.0	102.5	7.4	1.6×10 <sup>4</sup>	
		11:00	6	3.0	102.4	7.5	1.6×10 <sup>4</sup>	

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## General Conditions of Testing

Best Justicial Testing Technology Co., LTD. (hereinafter "the Company"), while reserving the right to decline, without giving any reason whatsoever, any request for undertaking of a test or investigation will carry out at the request of the clients the required test or investigation subject always to the following conditions.

1. The Company only acts for the person or body originating the instructions (the "Clients"). No other party is entitled to give instructions, particularly on the scope testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if the materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services:
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, failing which the Company shall be under no obligation to the Clients.
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6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
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10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or agreement made, the Clients shall pay to the Company;
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  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
15. The Company shall be discharged from all liability for all claims for loss, damage or expense unless suit is brought within one calendar year after the date of performance by the Company of the service relating to the claim or in the event of any alleged non-performance within one year of the date when such service should have been completed.
16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or undertake to discharge any duty of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any services to the extent that the aggregate of any such claims relating to any one service exceeds the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
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20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analysed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
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25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



#### 四、气象检测结果

检测时间		温度(℃)	风速(m/s)	风向	总云	低云	大气压(kPa)
2018.12.03	09:00	3.7	3.0	N	10	3	102.5
	10:00	5.4	2.9	N	10	3	102.4
	11:00	6.5	3.4	N	10	3	102.4
2018.12.04	09:00	-2.7	3.2	N	5	1	102.5
	10:00	-0.8	3.8	N	4	1	102.5
	11:00	0.6	3.3	N	4	1	102.4

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## General Conditions of Testing

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1. The Company only acts for the person or body originating the instructions (the "Clients") No other party is entitled to give instructions, particularly on the scope of testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, in which the Company shall be under no obligation to the Clients.
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6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the samples for testing.
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10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and furnish information regarding the methods to be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed the sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company:
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  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
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16. The Clients acknowledge that the Company does not, either by entering into a contract or by performing service, assume or undertake to discharge any duties of the Clients to any other persons. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
17. The Clients shall hold harmless and indemnify the Company and its officers, employees, agents or independent contractors against all claims made by any third party for loss, damage or expense of whatsoever nature including reasonable legal expenses relating to the performance or non-performance of any service to the extent that the aggregate of any such claims relating to any one service exceeds the limits mentioned in Clause 13.
18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes full responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agents, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling all the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee that information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



## 五、质量保证和质量控制

检测质量控制和质量保证均按照《检验检测机构资质认定能力评价 检验检测机构通用要求》（RB/T214-2017）及大连京诚盛宏源检测技术有限公司相关管理体系文件中的有关规定进行。

## General Conditions of Testing

Best Justicial Testing Technology Co., LTD. (hereinafter "the Company"), while reserving the right to decline, without giving any reason whatsoever, any request for the undertaking of a test or investigation will carry out at the request of the clients the required test or investigation subject always to the following conditions.

1. The Company only acts for the person or body originating the instructions (the "Clients"). No other party is entitled to give instructions, particularly on the scope of testing or delivery of report or certificate, unless authorized by the Clients.
2. All materials, equipment and other property to be tested or investigated shall be delivered at the costs of the Clients and in accordance with the requirements of the Company. At the conclusion of the test or investigation, the Clients shall, if required by the Company, collect the materials or equipment. In any event, if the materials or equipment are not collected by the Clients within 15 days from the issuance date of the test report (for perishable items such as food and water samples, the relevant period shall be 7 days), the Company may at its discretion dispose of the same without any compensation to the Clients.
3. The Clients shall always comply with the following before or during the Company providing its services
  - (a) Giving timely instructions and adequate information to enable the Company to perform the services effectively;
  - (b) Supply, when requested by the Company, any equipment and personnel for the performance of the services;
  - (c) Take all necessary steps to eliminate or remedy any obstruction in the performance of the services;
  - (d) Inform the Company in advance of any hazards or dangers, actual or potential, associated with any order of samples or testing;
  - (e) Provide all necessary access for the Company's representative to enable the required services to be performed effectively;
  - (f) Ensure all essential steps are taken for safety of working conditions, sites and installations during the performance of services;
  - (g) Fully discharge all its liabilities under any contract like sales contract with a third party, whether or not a report or certificate has been issued by the Company, failing which the Company shall be under no obligation to the Clients.
4. Subject to the Company's accepting the Client's instructions, the Company will issue reports and certificates which reflect statements of opinion made with due care within the scope of instructions but the Company is not obliged to report upon any facts outside the instructions.
5. The Company is irrevocably authorized by the Clients to deliver at its discretion the report or the certificate to any third party when instructed by the Clients or where it implicitly follows from circumstances, trade custom, usage or practice as determined by the Company.
6. A test report will be issued in confidence to the Clients and it will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, now or send it, or a certified copy thereof prepared by the Company, to his customer, supplier or other persons directly concerned. Subject to Clause 7, the Company will not, without the consent of the Clients, enter into any discussion or correspondence with nor disclose to any third party concerning the contents of the report unless required by the relevant governmental authorities, laws or court orders.
7. Applicants wishing to use the Company's reports in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
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10. If the Clients do not specify the methods/standards to be applied, the Company will choose the appropriate ones and further information regarding the methods can be obtained by direct contact with the Company.
11. No liability shall be incurred by and no claim shall be made against the Company or its servants, agents, employees or independent contractors in respect of any loss or damage to any such materials, equipment and property occurring whilst at the Company or any work places in which the testing is carried out, or in the course of transit to or from the Company or the said work places, whether or not resulting from any acts, neglect or default on the part of any such servants, agents, employees or independent contractors of the Company.
12. The Company will not be liable, or accept responsibility for any loss or damage howsoever arising from the use of information contained in any of its reports or in any communication whatsoever about its said tests or investigations.
13. Subject to Clauses 11 and 12, the total liability of the Company in respect of any claim of loss, damage or expense of whatsoever nature shall not exceed a total sum equal to five times the amount of the service fee payable in respect of the services directly related to such claim, and the Company's liability shall not include any indirect, special or consequential loss of the Clients.
14. In the event of the Company prevented by any cause outside the Company's control from performing any service for which an order has been given or an agreement made, the Clients shall pay to the Company:
  - a) The amount of all abortive expenditure actually made or incurred;
  - b) A proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out by the Company, and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required service.
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18. In the event of improper use of the report, the Company reserves the right to withdraw it, and to adopt any other measures which may be appropriate.
19. Samples submitted for testing are accepted on the understanding that the report issued cannot form the basis of, or be the instrument for, legal action against the Company.
20. Samples are deposited with and accepted by the Company on the basis that either they are insured by the Clients or the Clients or the Clients assumes entire responsibility for loss through fire, theft, burglary or for damages arising in the course of analysis or handling, without recourse whatsoever to the Company or its servants, agent, employees or independent contractors.
21. If the requirements of the Clients require the analysis of samples by the Clients' or any third party's laboratory, the Company will only convey the result of the analysis without responsibility for its accuracy. If the Company is only able to witness an analysis by the Clients' or any third party's laboratory the Company will only confirm that the correct sample has been analyzed without responsibility for the accuracy of any analysis or results.
22. In the event of any unforeseen additional time or costs being incurred in the course of carrying out any of its services, the Company shall be entitled to charge the Clients additional fees to reflect the additional time and costs incurred.
23. All rights (including but not limited to copyright) in any reports, certificates or other materials produced by the Company in the course of providing its services shall remain vested in the Company.
24. The Clients shall punctually pay on the date of invoice or within such other period agreed in writing by the Company all charges rendered by the Company or interest will become due at the rate of three per cent per month from the date of invoice until actual payment. The Clients are also responsible for settling all the Company's costs of collecting the charges owed, including legal fees.
25. Test results may be transmitted by electronic means at the Client's request. However, it should be noted that electronic transmission cannot guarantee the information contained will not be lost, delayed or intercepted by third party. The Company is not liable for any disclosure, error or omission in the content of such messages as a result of electronic transmission.
26. If necessary, the Company may subcontract part of or all tests to competent subcontractors. If no objection is raised at the time of the Clients submitting the application, the Company shall assume the Client's approval.
27. The Company reserves the right to include Special Conditions in addition to the foregoing General Conditions if warranted by the particular circumstances of the required test or investigation (this clause is only effective when the other party has been informed).
28. These General Conditions have been drafted in English and may be translated into other languages. In the event of discrepancy, the English version shall prevail.



## 普兰店污水处理厂二期工程

### 竣工环境保护验收意见

2018 年 12 月 19 日,大连东达环境集团普兰店水务有限公司根据《普兰店污水处理厂二期工程竣工环境保护验收报告》并对照《建设项目竣工环境保护验收暂行办法》,严格按照国家有关法律法规、建设项目竣工环境保护验收技术规范、项目环境影响报告表和审批部门审批决定等要求组织验收组对该项目进行验收,提出意见如下:

#### 一、工程建设基本情况

##### (一) 建设地点、规模、主要建设内容

本项目为普兰店污水处理厂二期工程,位于海湾经济区普兰店污水处理厂内,建设总规模为 6 万  $\text{m}^3/\text{d}$ ,污水处理厂设计出水水质满足《城镇污水处理厂污染物排放标准》(GB18918-2002)的一级 A 标准。污水处理工艺采用“预处理+AAO 工艺+深度处理”工艺。本工程利用现状污水处理厂厂区预留用地,占地面积约为 3.7 公顷,不新增建设用地。

##### (二) 建设过程及环保审批情况

2018 年 4 月,建设单位委托中国市政工程东北设计研究总院有限公司编制《普兰店污水处理厂二期工程环境影响报告表》,并于 2018 年 5 月 11 日取得了大连市普兰店区环境保护局的审批《关于普兰店污水处理厂二期工程环境影响报告表的批准决定》(普环评准字[2018]0011 号)。项目于 2018 年 5 月开工建设,2018 年 11 月竣工,同年 11 月进行了试运行。企业从立项至调试过程无环境投诉、违法、处罚记录。

##### (三) 投资情况

本项目实际总投资为 8245.08 万元,环保治理措施投资 338 万元,占总投资的 4.01%。

##### (四) 验收范围

本次验收的范围普兰店污水处理厂二期工程环境保护措施及设施(试)运行情况。

王薇 付彬 袁利利

王亮 于金盛

刘永良 梁平 潘爽

## 二、工程变动情况

本项目无重大变更。

## 三、环境保护设施建设情况

### （一）废水

污水处理采用 A/A/O 工艺，达到《城镇污水处理厂污染物排放标准》（GB18918-2002）一级 A 标准后排入鞍子河（V 类水体）。

### （二）废气

将臭气各自收集后通过总母管一并进入除臭系统，经过生物滤池除臭工艺进行除臭，之后通过 15m 排气筒有组织排放。

### （三）噪声

该项目选择低噪声设备，进行合理布局，采取隔声、吸声、隔振等综合措施处理。

### （四）固体废物

根据现场验收调查，栅渣、沉砂委托普兰店日洁环境清洁有限公司处理；污泥送至夏家河污泥处理厂进行处理，待厂区内的污泥深度处理工程建成后由厂内进行污泥深度处理后送至普兰店垃圾填埋场进行处理；职工生活垃圾每天由保洁人员收集，送至环卫部门指定的堆放点，由环卫部门统一处置。

## 四、环境保护设施调试情况

### 1、废水

经监测，废水中的化学需氧量、氨氮、悬浮物、总磷、总氮以及 BOD<sub>5</sub> 均满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级 A 标准。本项目产生的废水皆满足环评及其批复中的要求。

### 2、废气

根据验收监测结果，本项目有组织废气中氨、硫化氢、臭气浓度排放均符合《恶臭污染物排放标准》（GB14554-93）表 2 标准；无组织废气中氨、硫化氢、臭气浓度均满足《城镇污水处理厂污染物排放标准》（GB18918-2002）中“厂界（防护带边缘）废气排放最高允许浓度”的二级标准限值要求。本项目产生的废气皆满足环评及其批复中的要求。

### 3、噪声

王薇 付娟 顾利

王亮 王金盛

刘建良 梁平 潘庆



经监测，该项目厂界值均符合《工业企业厂界环境噪声排放标准》（GB12348-2008）中3类标准限值要求。

#### 4、固废

一般固体废物贮存及处置符合《一般工业固体废物贮存、处置场污染控制标准》（GB18599-2001）。

#### 五、工程建设对环境的影响

本项目生产过程中产生的各种有组织废气均符合相关标准要求，无组织排放浓度低于标准限值。

生产过程所产生的噪音均低于《工业企业厂界环境噪声排放标准》（GB12348-2008）中3类标准限值。

该工程废水中的化学需氧量、氨氮、悬浮物、总磷、总氮以及BOD<sub>5</sub>均满足《城镇污水处理厂污染物排放标准》（GB18918-2002）的一级A标准。

该工程所产生的固体废弃物以及危险废物得到有效处置。

#### 六、验收结论

根据《建设项目竣工环境保护验收暂行办法》（国环规环评[2017]4号）中所规定的验收不合格情形对本项目逐一对照检查，本项目不存在不合格情形，项目竣工验收合格。

#### 七、建议与要求

（1）加强生产和环保管理，定期对各类环保治理设施进行维护，检修，保证生产装置和污染治理设施稳定运行，确保各项污染物长期稳定达标排放。

（2）强化员工自身环保意识。

（3）加强向周边公众的宣传工作，提高他们对本工程的了解程度。

#### 八、验收人员信息

见验收工作会议签到表。

大连东达环境集团普兰店水务有限公司

2018年12月19日

普兰店污水处理厂二期工程  
竣工环境保护验收评审专家会签到单

组织单位：大连东达环境集团普兰店水务有限公司

时间：2018.12.19

地点：企业会议室

专家组成员：

签 到 单

序号	姓名	单位	职位	电话	身份证号
1					
2	潘欢	北京中环博安大药厂	工程师	13898026455	230103198003211326
3	刘永良	大连东达环境集团普兰店水务有限公司	工程师	15941169786	37068219800411311X
4	梁平	大连市环保局	工程师	15642327179	21020319550724001X
5	王薇	大连东达环境集团普兰店水务有限公司	厂长	15942880115	222424197904097720
6	付树彤	大连净海环保科技有限公司	工程师	18840819326	210211199010126767
7	屈研研	大连净海环保科技有限公司	工程师	13464027267	210103199010291820
8	王亮	大连东达环境集团普兰店水务有限公司	厂长助理	13500732827	210211198403287436
9	王奎盛	大连东达环境集团普兰店水务有限公司	副厂长	1514189882	21028119850726641X
10					
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18					



## 普兰店污水处理厂二期工程

### “其他需要说明的事项”相关说明

#### 1 环境保护设施设计、施工和验收过程简况

##### 1.1 设计简况

我公司《普兰店污水处理厂二期工程环境影响报告表》于2018年5月11日取得了大连市普兰店区环境保护局的环评批复（普环评准字[2018]0011号）。本建设项目的环境保护设施符合环境保护设计规范的要求，落实了防止污染和生态破坏的措施。

##### 1.2 施工简况

本项目于2018年5月开工建设，公司按照报告表及批复要求落实施工过程中的污染防治工作，主要措施有：施工期废水经工地临时沉淀池沉淀处理后用于冲洗施工机械等，不外排；施工场地设置围挡，避免同时使用噪声较大设备，施工时间为早6:00-晚10:00，夜间禁止施工；施工人员的生活垃圾经收集后及时运往当地环卫部门指定的生活垃圾填埋场处置。

##### 1.3 验收过程简况

2018年11月，我公司委托大连净海环保科技有限公司承担该项目竣工环境保护验收工作，接受委托后，大连净海环保科技有限公司于2018年11月对该项目进行现场勘察，收集核实相关技术资料，进行了现场现状和资料收集检查，并在此基础上编制该建设项目竣工环境保护验收监测方案。

依据该建设项目竣工环境保护验收监测方案，委托大连京诚盛宏源检测技术有限公司于2018年12月3日-12月4日进行了现场监测，在此基础上编写《普兰店污水处理厂二期工程竣工环境保护验收报告》。

2018年12月19日召开普兰店污水处理厂二期工程竣工环境保护验收会，会议成立项目验收组和专家组，经技术审查形成专家评审意见。验收组根据专家意见和现场核查情况，结合竣工环境保护验收调查报告等相关资料，认为本项目在建设和试运行中总体落实了环评及“三同时”制度，环保措施落实到位，各项污染物排放达到国家标准，制定和完善了环境管理制度，符合验收条件，同意通过竣工环保验收。

##### 1.4 公众反馈意见及处理情况

建设项目施工和验收期间未收到过公众反馈意见或投诉。

## 2 其他环境保护措施的实施情况

### (1) 环保组织机构及规章制度

我公司成立了环保部门,负责生产过程的环保工作,制定相关的环境保护规章制度,并负责环保设施的运行、管理和维护工作。

### (2) 环境监测计划

我公司按照环境影响报告表及其审批部门审批决定要求制定了运行期环境监测计划,日常监测委托第三方有资质单位进行监测。

## 3 整改工作情况

目前未收到需要整改的意见。

大连东达环境集团普兰店水务有限公司

2018年12月19日

