

Science Park Sewer Systems Effluent Standards

Nine articles promulgated by Environmental Protection Administration Order Huan-Shu-Shui-Tzu No. 1010090484 on October 12, 2012.

Article 1 These Standards are determined pursuant to Article 7, Paragraph 2 of the Water Pollution Control Act.

Article 2 Terms used in these Standards are defined as follows:

I. "Seven-day average values" means the values are derived by mixing four daily water samples, taken at intervals of from four to eight hours, to perform one water sample test; the average is then taken of test values for seven consecutive days

II. "TTO" means the concentrations of any of the following 30 types of chemical compounds: 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene, Toluene, Ethylbenzene, Chloroform, 1,2-Dichloroethane, Dichloromethane, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Dichlorobromomethane, Tetrachloroethylene, Trichloroethene, 1,1-Dichloroethene, 2-Chlorophenol, 2,4-Dichlorophenol, 4-Nitrophenol, Pentachlorophenol, 2-Nitrophenol, Phenols, 2,4,6-Trichlorophenol, Bis(2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), Benzyl butyl phthalate (BBP), Anthracene, 1,2-Diphenylhydrazine, Isophorone, and Carbon Tetrachloride.

III. "Newly-established sewer system" means Science Park Sewer Systems for which planning had not been completed as of October 12, 2012, or for which planning had been completed, but project bid request procedures had not yet been completed as of that time.

IV. "Existing sewer system " means Science Park Sewer Systems that had been completed, were in construction, or for which project bid request procedures had been completed as of October 12, 2012.

Article 3 These Standards are applicable to Science Park Sewer Systems.

Article 4 See the Attached Table for the water quality items and limits prescribed in these Standards.

Article 5 Science Park Sewer Systems or relevant environmental groups may submit detailed scientific data and information to the Responsible Agency at the central government level to support argument for revision of these Standards.

Article 6 The COD limits determined in these Standards shall be tested using the potassium dichromate oxidation method; the true color shall be tested using true color colorimetry.

Article 7 Concerning the limits in the foregoing paragraph, apart from the pH, which is defined as a range and not in units, the rest are defined as the maximum allowed value using the following units of measure:

I. Water temperature: Celsius (°C) °

II. True color: Unitless

III. Other items: Milligrams per liter (mg/L) °

Article 8 With regard to the limits for the items in these Standards, apart from water temperature and pH, these standards shall not apply when Science Park Sewer System obtains water from a water body for non-contact cooling or circulating cooling and such water is discharged to the surface water body from which it was originally obtained.

Article 9 Unless an enforcement date is separately designated, these standards shall take effect on the date of promulgation.

Attached Table

Item	Limit	Remarks
Water temperature	38 °C (applicable to the period from May to September)	Applicable to the discharging of effluents into surface water bodies other than the ocean.
	35 °C (applicable to the period from October to April of the following year)	
	42 °C , and the temperature difference may not exceed 4 °C for surface water at 500 meters from the discharge point.	Applicable to effluents directly discharged into the sea.
pH	6.0 - 9.0	
Fluorides	15	
Nitrate nitrogen	50	
Ammonia nitrogen	10	Applicable to sewer system discharging wastewater or sewage into water source water quality protection zones.
	20	Applicable to newly-established sewer system not discharging wastewater or sewage into water source water quality protection zones.
	75	1.Applicable to existing sewer system not discharging wastewater or sewage into a water source water quality protection zones; enforced from July 1, 2013. 2. When a project or other improvement measure is involved, the Science Park sewer system shall submit an effluent pollutant reduction management plan by March 31, 2013, and shall implement the content of said plan after approval by the special municipality, county, or city competent authority; enforced from January 1, 2015.
	30	Applicable to existing sewer system not discharging wastewater or sewage into a water source water quality protection zones; enforced from January 1, 2017.

Orthophosphates (calculated as trivalent phosphate radicals)	4.0	Applicable to enterprises discharging wastewater or sewage into water source water quality protection zones.
Phenols	1.0	
Anionic surfactants	10	
Cyanide	1.0	
Oil and grease (n-hexane extract)	10	
Soluble iron	10	
Soluble manganese	10	
Cadmium	0.03	
Lead	1.0	
Total chromium	2.0	
Hexavalent chromium	0.5	
Methylmercury	not detectable	
Total mercury	0.005	
Copper	3.0	
Zinc	5.0	
Silver	0.5	
Nickel	1.0	
Selenium	0.5	
Arsenic	0.5	
Boron	1.0	
Sulfide	1.0	
Biological oxygen demand (BOD)	Maximum value	30
	Seven-day average value	25
Chemical oxygen demand (COD)	Maximum value	100
	Seven-day average value	80
Suspended solids	Maximum value	30
	Seven-day average value	25

Biological oxygen demand (BOD)	Maximum value	25	<p>1. Effective from January 1, 2016.</p> <p>2. Applicable to Science Park sewer systems for which planning had not been completed by July 31, 2009 or planning had been completed but project bid requests had not yet been made, and for which project bid requests had been made by July 31, 2009 with permit-approved effluent volume exceeding 10,000 CMD.</p>
	Seven-day average value	20	
Chemical oxygen demand (COD)	Maximum value	80	
	Seven-day average value	65	
Suspended solids	Maximum value	25	
	Seven-day average value	20	
True color		550	
Indium		0.1	<p>Applicable to Science Park sewer systems when the connected water volume approved on “wafer and semiconductor manufacturing industry” and “optoelectronic materials and component manufacturing industry” permits exceeds 50% of the permit-approved effluent volume.</p>
Gallium		0.1	
Molybdenum		0.6	
Total toxic organics(TTO)		1.37	