

Table 4.19. 1995 NPDES compliance at ORNL

Discharge point	Effluent parameters	Permit limits					Permit compliance		
		Monthly av (kg/d)	Daily max (kg/d)	Monthly av (mg/L)	Daily max (mg/L)	Daily min (mg/L)	Number of noncompliances	Number of samples	Percentage of compliance ^a
X01 Sewage Treatment Plant)	Ammonia, as N (summer)	3.5	5.2	4.0	6.0		0	93	100
	Ammonia, as N (winter)	7.8	11.8	9.0	13.5		0	63	100
	Biochemical oxygen demand (summer)	8.7	13.1	10	15		0	93	100
	Biochemical oxygen demand (winter)	17.4	26.2	20	30		0	63	100
	Chlorine, total residual dissolved oxygen				0.5	6.0	1	158	99
	Downstream pH (SU)				9.0	6.0	0	249	100
	Fecal coliform (col/100 mL) ^b			1000	5000		2	156	99
	Oil and grease pH (SU)	8.7	13.1	10	15	6.0	0	156	100
	Total suspended solids	26.2	39.2	30	45		0	156	100
	X02 (Coal Yard Runoff Treatment Facility)	Chromium, total			0.2	0.2		0	52
Copper, total				1.0	1.0		0	52	100
Downstream pH (SU)					9.0	6.0	0	109	100
Iron, total				1.0	1.0		0	52	100
pH (SU)					9.0	6.0	0	109	100
Oil and grease				15	20		1	52	98
Selenium, total				0.22	0.95		0	52	100
Temperature (°C)					30.5		0	109	100
Total suspended solids					50		1	52	98
Zinc				1.0	1.0		0	52	100
X12 (Nonradiological Wastewater Treatment Facility)	Cadmium, total	0.79	2.09	0.26	0.69		0	52	100
	Chromium, total	5.18	8.39	1.71	2.77		0	52	100
	Copper, total	6.27	10.24	2.07	3.38		0	52	100
	Cyanide, total	1.97	3.64	0.65	1.20		0	52	100
	Downstream pH (SU)				9.0	6.0	0	249	100
	Lead, total	1.30	2.09	0.43	0.69		0	52	100
	Nickel, total	7.21	12.06	2.38	3.98		0	52	100
	Oil and grease	30.3	45.4	10	15	6.0	0	52	100
	pH (SU)				9.0		0	52	100
	Silver, total	0.73	1.30	0.24	0.43		0	249	100
Temperature (°C)				30.5		0	249	100	

Oak Ridge Reservation Annual Site Environmental Report for 1995

Table 4.19 (continued)

Discharge point	Effluent parameters	Permit limits				Permit compliance			
		Monthly av (kg/d)	Daily max (kg/d)	Monthly av (mg/L)	Daily max (mg/L)	Daily min (mg/L)	Number of noncompliances	Number of samples	Percentage of compliance ^a
Category I outfall ^d	Total suspended solids	93.9	182	31	60	6.0	0	52	100
	Total toxic organics		6.45		2.13		0	52	100
	Zinc, total	4.48	7.91	1.48	2.61		0	52	100
Category II outfalls	Downstream pH (SU)			10	9.0	6.0	0	22	100
	Oil and grease				15		0	22	100
	pH (SU)				9.0	6.0	0	22	100
	Temperature (°C)			30	30.5		0	22	100
Cooling Systems	Total suspended solids			30	50		4	22	82
	Downstream pH (SU)				9.0	6.0	0	143	100
	Downstream temperature (°C) ^e			10	30.5		0	40	100
	Oil and grease				15		0	143	100
	pH (SU)			30	9.0	6.0	0	143	100
Cooling Systems	Total suspended solids			30	50		15	143	90
	Chlorine, total residual				0.2		0	33	100
	Chromium, total				1.0		0	33	100
	Copper, total			0.5	1.0		0	33	100
	Downstream pH (SU)				9.0	6.0	0	33	100
	pH (SU)				9.0	6.0	0	33	100
Cooling Systems	Temperature (°C)			35	38		0	33	100
	Zinc, total			0.5	1.0		0	33	100

^aPercentage compliance = 100 - [(number of noncompliances/number of samples) * 100].

^bColonyes per 100 mL.

^cpH monitoring is continuous.

^dCategory I outfalls are monitored annually by the NPDES Permit year of April 1–March 31.

^eDownstream temperature is monitored to check that the stream temperature standards given in the Tennessee Water Quality Standards are not violated as a result of this discharge.