

# Environmental Data by Plant and Housing Works (FY2000)

Regarding the environmental data for FY1999 please see the Environmental Report 2000 or visit the Website, <http://www.global.toyota.com>  
The method for indicating water pollution control values has changed according to the Water Pollution Prevention Law.  
For plants and housing works in Aichi Prefecture, values for nitrogen and phosphorus have been indicated according to Prefectural reduction guidelines.

## Honsha Plant

● Location: Toyota-cho, Toyota City, Aichi Prefecture

### ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	142	98
		218	106
	Oven	184	86
		237	21
	Gas turbine	70	35
Heating furnace	190	132	
P.M.	Boiler	0.2	0.02
	Oven	0.2	0.007
	Gas turbine	0.05	0.007
	Heating furnace	0.4	0.006
SOx	(Area-wide total pollutant control)	85.9	58.5

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>NHr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

### ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		12,400	6,500	8,500
pH	5.8 - 8.6	7.5	6.1	6.7
BOD	25 (20)	8.8	0.6	3.3
COD	—	12.7	6.8	9.5
SS	30 (20)	2.9	0.1	0.8
Oil	5	1.4	less than 0.1	0.3
Copper	1	0.04	less than 0.01	0.005
Fluorine	15	0.2	less than 0.1	0.03
Zinc	5	0.3	0.02	0.1
Soluble iron	10	0.1	less than 0.05	0.01
Soluble manganese	10	0.2	0.07	0.1
Total nitrogen	15	13.3	7	10.3
Total phosphorus	2	1.7	0.6	1.1

- \*Note 1. The control values for BOD and SS show the highest value (daily average).
- \*Note 2. Discharged water volume unit: m<sup>3</sup>/day
- \*Note 3. All figures are shown in mg/l, except for the pH item.
- \*Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropane, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.

- \*pH: Hydrogen ion concentration
- \*BOD: Biochemical oxygen demand
- \*COD: Chemical oxygen demand
- \*SS: Concentration of suspended solids in water

### ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	24,441	0	323	2,460	602	37	0	21,019
2-Aminoethanol	16,443	0	0	0	0	0	16,443	0
Ethylbenzene	70,192	28	0	0	0	0	0	70,164
Ethylene glycol	9,058	0	0	416	0	0	7,698	944
Ethyleneglycol monoethylether	29,649	0	0	0	0	0	29,649	0
Xylene	507,171	74,574	0	0	0	0	0	432,597
2-Ethoxyethyl acetate	51,573	4	0	0	0	0	0	51,569
Organic tin compounds	3,717	0	0	306	69	0	0	3,342
Styrene	12,707	0	0	0	0	0	240	12,467
Toluene	1,805,959	50,981	0	0	0	0	0	1,754,978
Lead and its compounds	1,952	0	11	36	8	1,311	0	586
Nickel compounds	1,376	0	188	573	147	0	0	468
Benzene	135,630	79	0	0	0	0	0	135,551
Poly (oxyethylene) alkyl ether (alkyl C=12-15)	1,545	0	0	0	0	0	1,545	0
Poly (oxyethylene) nonylphenyl ether	1,754	0	0	0	0	0	1,754	0
Manganese and its compounds	6,662	0	386	1,744	402	0	0	4,130

Note 1. Unit: kg/year

Note 2. The term "volume removed" above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.

Note 3. The term "consumption volume" refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

## Motomachi Plant

● Location: Motomachi, Toyota City, Aichi Prefecture

### ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	120	102
		142	123
		175	150
	Oven	184	5
		218	19
P.M.	Boiler	0.2	0.07
	Oven	0.2	0.08
SOx	(Area-wide total pollutant control)	102.1	86.5

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>NHr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

### ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		13,300	4,000	7,400
pH	5.8 - 8.6	7.1	6.3	6.8
BOD	25 (20)	6.0	0.2	1.7
COD	—	22.6	6.1	9.5
SS	30 (20)	5.3	0.1	0.9
Oil	5	1.3	less than 0.1	0.3
Copper	1	0.02	less than 0.01	0.005
Fluorine	15	1.2	less than 0.1	0.7
Zinc	5	0.3	0.05	0.2
Soluble iron	5	0.08	less than 0.05	0.007
Soluble manganese	5	1.5	less than 0.05	0.3
Total nitrogen	15	13.1	3.2	6.7
Total phosphorus	2	1.6	0.1	0.5
Total chromium	2	0.04	less than 0.02	0.004

- \*Note 1. The control values for BOD and SS show the highest value (daily average).
- \*Note 2. Discharged water volume unit: m<sup>3</sup>/day
- \*Note 3. All figures are shown in mg/l, except for the pH item.
- \*Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropane, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.

- \*pH: Hydrogen ion concentration
- \*BOD: Biochemical oxygen demand
- \*COD: Chemical oxygen demand
- \*SS: Concentration of suspended solids in water

### ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	30,120	0	493	2,440	643	35	0	26,509
2-Aminoethanol	20,549	0	0	0	0	0	20,549	0
Ethylbenzene	34,781	168	0	0	0	0	0	34,613
Ethylene glycol	356,978	246	0	0	0	0	1,517	355,215
Ethyleneglycol monoethylether	11,186	3,168	0	0	0	0	8,018	0
Xylene	1,259,114	676,250	0	0	0	385,690	35,114	162,060
Chromium and chromium (III) compounds	38,524	0	36	5	2	15,427	0	23,054
Hexavalent chromium	6,915	0	0	0	0	0	6,915	0
2-Ethoxyethyl acetate	5,784	5,557	0	0	0	0	227	0
N,N-Dimethylformamide	8,312	5,238	0	0	0	3,020	54	0
Organic tin compounds	4,212	0	0	268	68	0	0	3,876
Copper salts (water-soluble except complex salts)	6,249	0	18	217	54	2,228	0	3,732
Toluene	556,069	248,343	0	0	0	31,672	6,773	269,281
Lead and its compounds	11,774	0	13	536	134	0	0	11,091
Nickel compounds	16,690	0	242	4,712	1,201	2,649	0	7,886
Hydrofluoric acid and its compounds (soluble)	91,725	0	1,225	1,521	380	0	0	88,599
Hexamethylene diisocyanate	1,726	0	0	0	0	0	1,726	0
Benzene	46,393	54	0	0	0	0	0	46,339
Boron and its compounds	4,747	4	2,235	815	203	0	0	1,490
Poly (oxyethylene) alkyl ether (alkyl C=12-15)	3,596	0	0	0	0	0	3,596	0
Formaldehyde	2,512	1,132	0	0	0	0	1,380	0
Manganese and its compounds	9,617	0	82	2,897	676	0	0	5,962

Note 1. Unit: kg/year

Note 2. The term "volume removed" above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.

Note 3. The term "consumption volume" refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Kamigo Plant

● Location: Taisei-cho, Toyota City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	144	96
		218	99
	Oven	184	27
		200	56
		237	46
	Melting furnace	144	58
		171	5
		190	93
	Heating furnace	144	41
	Gas turbine	70	42
P.M.	Boiler	0.2	0.01
	Oven	0.2	0.009
	Melting furnace	0.2	0.02
	Heating furnace	0.2	0.09
	Gas turbine	0.05	0.02
SOx	(Area-wide total pollutant control)	62	14.1
Dioxin (3)	Melting furnace	20	0.01
	Oven	20	0.0001
	Sand recovery furnace	80	0.006

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- The values newly reported are based on the Law Concerning Special Measures against Dioxins with the unit of ng-TEQ/m<sup>3</sup>N

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		12,300	3,500	7,300
pH	5.8 - 8.6	7.2	6.6	6.9
BOD	25 (20)	4.2	0.2	1.4
COD	—	9.8	4.4	6.1
SS	30 (20)	1.7	less than 0.1	0.7
Oil	5	0.5	less than 0.1	0.2
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	0.1	less than 0.1	0.008
Zinc	5	0.1	0.05	0.09
Soluble iron	5	0.07	less than 0.05	0.006
Soluble manganese	5	less than 0.05	less than 0.05	less than 0.05
Total nitrogen	15	8.9	5.8	7.9
Total phosphorus	2	0.7	0.1	0.3

- ★Note 1. The control values for BOD and SS show the highest value (daily average).
- ★Note 2. Discharged water volume unit: m<sup>3</sup>/day
- ★Note 3. All figures are shown in mg/l, except for the pH item.
- ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	12,675	0	244	2,961	816	3,688	0	4,966
2-Aminoethanol	20,622	0	0	0	0	0	20,622	0
Ethylbenzene	20,627	8	0	0	0	0	0	20,619
Ethylene glycol	312,541	0	0	11,253	0	0	198	301,090
Xylene	105,842	2,268	0	0	0	0	0	103,574
Chlorodifluoromethane	1,240	1,240	0	0	0	0	0	0
Dioxin	8	8	0	0	0	0	0	0
Toluene	245,327	3,332	0	0	0	0	0	241,995
Nickel compounds	1,205	0	80	571	145	0	0	409
Barium and its compounds (soluble)	1,914	0	0	827	257	830	0	0
Phenol	18,290	0	0	0	0	0	9,934	8,356
Hydrofluoric acid and its compounds (soluble)	11,580	0	0	6,469	12	0	0	5,099
Benzene	30,429	12	0	0	0	0	0	30,417
Boron and its compounds	2,295	0	494	971	136	0	0	694
Poly (oxyethylene) nonylphenyl ether	6,706	0	1	0	0	0	0	6,705
Formaldehyde	6,388	3,913	0	0	0	0	0	2,475
Manganese and its compounds	1,224	0	32	351	82	0	0	759

- Note 1. Unit: kg/year
- Note 2. The amount of dioxins is measured in mg-TEQ/year.
- Note 3. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- Note 4. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.
- Note 5. Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.

# Takaoka Plant

● Location: Honda-cho, Toyota City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	218	136
	Gas turbine	56	48
		80	56
	Oven	184	180
		218	80
P.M.	Boiler	0.2	0.03
	Gas turbine	0.05	0.006
	Oven	0.2	0.03
SOx	(Area-wide total pollutant control)	77.8	33

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		13,400	4,500	7,300
pH	5.8 - 8.6	7.2	6.5	6.9
BOD	25 (20)	5.6	0.2	1.1
COD	—	10.0	3.7	6.1
SS	30 (20)	1.2	0.1	0.3
Oil	5	0.7	0.1	0.3
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	2.3	less than 0.1	1.7
Zinc	5	0.3	0.1	0.2
Soluble iron	5	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	5	0.3	less than 0.05	0.03
Total nitrogen	15	4.6	1.8	2.9
Total phosphorus	2	1	0.2	0.5
Total chromium	2	0.03	less than 0.02	0.005

- ★Note 1. The control values for BOD and SS show the highest value (daily average).
- ★Note 2. Discharged water volume unit: m<sup>3</sup>/day
- ★Note 3. All figures are shown in mg/l, except for the pH item.
- ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	117,765	0	450	9,898	2,473	740	0	104,204
2-Aminoethanol	2,671	0	0	0	0	0	2,671	0
N-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	1,032	0	0	0	0	309	20	703
Ethylbenzene	94,179	131	0	0	0	0	0	94,048
Ethylene glycol	1,215,768	0	0	0	0	0	0	1,215,768
Xylene	1,745,151	960,062	0	0	0	260,390	85,541	439,158
Organic tin compounds	25,404	0	0	827	206	2,361	0	22,010
Copper salts (water-soluble, except complex salts)	3,196	0	3	884	222	0	0	2,087
Toluene	1,275,240	526,040	0	0	0	2,944	27,983	718,273
Lead and its compounds	21,070	0	10	828	207	0	0	20,025
Nickel compounds	15,577	0	203	8,031	2,046	0	0	5,297
Barium and its compounds (soluble)	1,513	0	0	967	289	14	0	243
Hydrazine	2,580	0	0	0	0	0	0	2,580
Bis (2-ethylhexyl) phthalate	2,380	0	0	0	0	0	0	2,380
Hydrofluoric acid and its compounds (soluble)	265,334	0	4,063	27	7	0	0	261,237
Benzene	125,866	423	0	0	0	0	0	125,443
Boron and its compounds	4,299	0	76	69	17	0	0	4,137
Poly (oxyethylene) alkyl ether (alkyl C=12-15)	3,337	0	0	0	0	0	0	3,337
Formaldehyde	15,034	3,817	0	0	0	0	0	11,217
Manganese and its compounds	30,271	0	386	8,955	2,162	0	0	18,768

- Note 1. Unit: kg/year
- Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Miyoshi Plant

● Location: Miyoshi-cho, Nishikamo-gun, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	145	77
	Heating furnace	144	4
	Gas turbine (3)	50	42.5
P.M.	Boiler	0.2	0.005
	Heating furnace	0.2	0.1
	Gas turbine (3)	0.05	0.001
SOx	(Area-wide total pollutant control)	21.9	14.9

- The control values are shown in ppm for NOx, g/m<sup>3</sup>-N for P.M., and m<sup>3</sup>-N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- Added because of installation of gas-turbine facilities in FY2000.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		3,500	1,200	2,500
pH	5.8 - 8.6	7.2	6.6	7.0
BOD	25 (20)	5.1	0.7	2.0
COD	—	14.0	5.8	8.1
SS	30 (20)	4.1	0.3	1.2
Oil	5	1.7	0.1	0.8
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	less than 0.1	less than 0.1	less than 0.1
Zinc	5	0.5	0.03	0.2
Soluble iron	5	0.06	less than 0.05	0.01
Soluble manganese	5	0.08	less than 0.05	0.06
Total nitrogen	15	5.9	1	3.8
Total phosphorus	2	1	0.3	0.6

- ★Note 1. The control values for BOD and SS show the highest value (daily average).  
 ★Note 2. Discharged water volume unit: m<sup>3</sup>/day  
 ★Note 3. All figures are shown in mg/l, except for the pH item.  
 ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thioencarb, benzene, and selenium.

Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	59,929	0	186	15,818	5,391	12,773	0	25,761
2-Aminoethanol	10,154	0	0	0	0	0	10,094	60
Ethylbenzene	2,051	0	0	0	0	0	0	2,051
Ethyleneglycol monoethylether	2,435	226	0	0	0	0	438	1,771
Xylene	11,450	1,877	0	0	0	0	0	9,573
2-Ethoxyethyl acetate	1,112	306	0	0	0	0	0	806
Toluene	20,505	4,876	0	0	0	0	0	15,629
Barium and its compounds (soluble)	7,607	0	0	2,160	677	2,498	0	2,272
Benzene	2,735	1	0	0	0	0	0	2,734

- Note 1. Unit: kg/year  
 Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.  
 Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Tsutsumi Plant

● Location: Tsutsumi-cho, Toyota City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	144	65
		218	90
	Gas turbine	70	34
		100	82
	Oven	184	42
		237	37
P.M.	Melting furnace	144	53
	Boiler	0.2	0.04
	Gas turbine	0.05	0.01 or less
	Oven	0.2	0.04
SOx	Melting furnace	0.2	0.06
	(Area-wide total pollutant control)	102.6	72.6
Dioxin (3)	Melting furnace	20	0.01

- The control values are shown in ppm for NOx, g/m<sup>3</sup>-N for P.M., and m<sup>3</sup>-N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- The values newly reported are based on the Law Concerning Special Measures against Dioxins with the unit of ng-TEQ/m<sup>3</sup>-N

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		8,200	1,900	5,800
pH	5.8 - 8.6	7.4	6.2	6.9
BOD	25 (20)	4.0	less than 0.1	1.0
COD	—	10.2	2.8	7.2
SS	30 (20)	1.6	less than 0.1	0.3
Oil	5	1.3	less than 0.1	0.2
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	1.2	less than 0.1	0.8
Zinc	5	0.3	0.1	0.2
Soluble iron	5	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	5	0.3	less than 0.05	0.2
Total nitrogen	15	4.2	0.7	1.7
Total phosphorus	2	1.9	0.1	0.8

- ★Note 1. The control values for BOD and SS show the highest value (daily average).  
 ★Note 2. Discharged water volume unit: m<sup>3</sup>/day  
 ★Note 3. All figures are shown in mg/l, except for the pH item.  
 ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thioencarb, benzene, and selenium.

Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	88,932	0	348	7,287	1,843	2,386	0	77,068
2-Aminoethanol	6,743	0	0	0	0	0	6,743	0
Ethylbenzene	63,641	49	0	0	0	0	0	63,592
Ethylene glycol	866,744	0	0	348	0	0	0	866,396
Ethyleneglycol monoethylether	40,865	27,880	0	0	0	0	12,985	0
Xylene	1,032,395	507,765	0	0	0	177,856	49,615	297,159
2-Ethoxyethyl acetate	1,188	1,056	0	0	0	0	0	132
Organic tin compounds	10,926	0	0	460	124	491	0	9,851
Dioxin	0.38	0.38	0	0	0	0	0	0
Toluene	761,528	262,065	0	0	0	3,808	7,694	487,961
Lead and its compounds	8,139	0	5	321	80	0	0	7,733
Nickel compounds	9,512	0	137	4,833	1,233	0	0	3,309
Barium and its compounds (soluble)	1,079	0	0	806	222	0	0	51
Hydrazine	1,674	0	0	0	0	0	0	1,674
Bis (2-ethylhexyl) phthalate	1,381	0	0	0	0	0	0	1,381
Hydrofluoric acid and its compounds (soluble)	265,904	0	1,406	780	194	0	0	263,524
Benzene	84,973	70	0	0	0	0	0	84,903
Boron and its compounds	2,611	158	98	321	80	0	0	1,954
Poly (oxyethylene) alkyl ether (alkyl C=12-15)	5,769	0	0	0	0	0	5,769	0
Poly (oxyethylene) nonylphenyl ether	1,912	0	0	0	0	0	1,912	0
Formaldehyde	6,563	1,666	0	0	0	0	4,897	0
Manganese and its compounds	22,910	0	293	6,822	1,591	0	0	14,204
Tris (2-Chloroethyl) phosphate	2,112	0	0	0	0	0	105	2,007

- Note 1. Unit: kg/year  
 Note 2. The amount of dioxins is measured in mg-TEQ/year.  
 Note 3. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.  
 Note 4. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.  
 Note 5. Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.

# Myochi Plant

● Location: Miyoshi-cho, Nishikamo-gun, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	218	70
		144	103
	Heating furnace	144	59
	Oven	184	45
	Melting furnace	144	89
	Gas turbine (3)	100	46
P.M.	Boiler	0.2	less than 0.001
	Heating furnace	0.2	0.002
	Oven	0.2	0.006
	Melting furnace	0.2	0.001
	Gas turbine (3)	0.05	0.005
SOx (Area-wide total pollutant control)		17.7	6.7
Dioxin (4)	Melting furnace	20	0.04

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/Hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- Added because of installation of gas-turbine facilities in FY2000.
- The values newly reported are based on the Law Concerning Special Measures against Dioxins with the unit of ng-TEQ/m<sup>3</sup>N

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		2,900	570	2,100
pH	5.8 - 8.6	7.7	6.8	7.3
BOD	25 (20)	1.1	less than 0.1	0.5
COD	—	12.9	3.5	7.0
SS	30 (20)	0.9	0.1	0.3
Oil	5	0.3	less than 0.1	0.1
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	0.7	less than 0.1	0.3
Zinc	5	0.9	0.06	0.2
Soluble iron	5	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	5	less than 0.05	less than 0.05	less than 0.05
Total nitrogen	15	2.3	0.7	1.5
Total phosphorus	2	0.6	less than 0.02	0.1

- ★Note 1. The control values for BOD and SS show the highest value (daily average).
  - ★Note 2. Discharged water volume unit: m<sup>3</sup>/day
  - ★Note 3. All figures are shown in mg/l, except for the pH item.
  - ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	3,056	0	114	985	302	487	0	1,168
2-Aminoethanol	9,278	0	0	0	0	0	9,278	0
Ethylbenzene	3,146	1	0	0	0	0	0	3,145
Ethylene glycol	8,070	0	0	8,024	0	0	0	46
Xylene	16,292	1,608	0	0	0	0	0	14,684
Dioxin	4	4	0	0	0	0	0	0
Toluene	28,380	4,408	0	0	0	0	0	23,972
Phenol	31,379	0	0	0	0	0	30,987	392
Hydrofluoric acid and its compounds (soluble)	4,846	0	187	2,027	46	577	0	2,009
Benzene	4,195	1	0	0	0	0	0	4,194
Boron and its compounds	1,448	0	105	878	136	0	0	329
Formaldehyde	8,835	1,487	0	0	0	0	7,348	0

- Note 1. Unit: kg/year
- Note 2. The amount of dioxins is measured in mg-TEQ/year.
- Note 3. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- Note 4. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.
- Note 5. Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.

# Shimoyama Plant

● Location: Miyoshi-cho, Nishikamo-gun, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	218	134
	Gas turbine	50	44
P.M.	Boiler	0.2	0.01
	Gas turbine	0.05	0.007
SOx (Area-wide total pollutant control)		16.5	8.9

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/Hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		4,100	450	1,200
pH	5.8 - 8.6	7.5	6.4	7.0
BOD	25 (20)	3.1	0.4	1.3
COD	—	17.7	8.0	12.3
SS	30 (20)	8.4	less than 0.1	0.8
Oil	5	0.8	less than 0.1	0.2
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	0.2	less than 0.1	0.1
Zinc	5	0.08	0.02	0.05
Soluble iron	5	0.06	less than 0.05	0.005
Soluble manganese	5	0.4	0.1	0.2
Total nitrogen	15	10	5	6.8
Total phosphorus	2	1.6	0.2	0.9

- ★Note 1. The control values for BOD and SS show the highest value (daily average).
  - ★Note 2. Discharged water volume unit: m<sup>3</sup>/day
  - ★Note 3. All figures are shown in mg/l, except for the pH item.
  - ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	2,734	0	18	172	46	0	0	2,498
2-Aminoethanol	13,089	0	0	0	0	0	12,988	101
Ethylbenzene	5,380	2	0	0	0	0	0	5,378
Ethylene glycol	70,569	0	0	0	0	0	0	70,569
Xylene	30,601	1,228	0	0	0	0	0	29,373
Toluene	94,738	3,533	0	0	0	0	0	91,205
Lead and its compounds	1,064	0	1	84	20	0	0	959
Benzene	8,888	3	0	0	0	0	0	8,885
Poly (oxyethylene) nonylphenyl ether	1,340	0	0	0	0	0	1,340	0

- Note 1. Unit: kg/year
- Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Kinuura Plant

● Location: Tamatsura-cho, Hekinan City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	104	75
		142	78
		171	54
	Heating furnace	144	83
	Melting furnace	144	59
P.M.	Boiler	0.1	0.002
	Heating furnace	0.2	0.09
	Melting furnace	0.2	0.02
SOx	(Area-wide total pollutant control)	6.92	3.2
Dioxin (3)	Melting furnace	20	0.08
	Oven	20	0.08

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>NHr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- The values newly reported are based on the Law Concerning Special Measures against Dioxins with the unit of ng-TEQ/m<sup>3</sup>N

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		2,400	1,000	1,800
pH	5.0 - 9.0	7.4	6.2	7.0
BOD	—	10.4	0.1	3.8
COD	25 (20)	9.8	3.6	6.5
SS	30 (20)	8.3	0.2	2.4
Oil	5	0.7	0.1	0.3
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	less than 0.1	less than 0.1	less than 0.1
Zinc	5	0.7	0.1	0.3
Soluble iron	10	0.1	less than 0.05	0.04
Soluble manganese	10	0.4	less than 0.05	0.1
Total nitrogen	15	10.5	4.4	8.1
Total phosphorus	2	1	0.1	0.4

- \*Note 1. The control values for COD and SS show the highest value (daily average).
  - \*Note 2. Discharged water volume unit: m<sup>3</sup>/day
  - \*Note 3. All figures are shown in mg/l, except for the pH item.
  - \*Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropane, thiuram, simazine, thioencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	29,276	0	187	2,734	597	1,889	0	23,869
2-Aminoethanol	21,232	0	0	0	0	0	21,232	0
Ethylbenzene	9,174	3	0	0	0	0	0	9,171
Ethylene glycol monoethyl ether	1,164	0	0	0	0	0	1,001	163
Xylene	49,054	1,593	0	0	0	0	0	47,461
2-Ethoxyethyl acetate	1,824	0	0	0	0	0	0	1,824
Dioxin	19	19	0	0	0	0	0	0
Toluene	127,726	3,902	0	0	0	0	0	123,824
Nickel (metal)	1,180	0	0	0	0	0	0	1,180
Nickel compounds	1,076	0	57	527	135	0	0	357
Hydrofluoric acid and its compounds (soluble)	10,865	0	0	5,406	0	53	0	5,406
Benzene	14,082	5	0	0	0	0	0	14,087
Poly (oxyethylene) nonylphenyl ether	4,392	0	1	0	0	0	4,391	0
Manganese and its compounds	2,033	0	70	441	102	0	0	1,420
Molybdenum and its compounds	1,722	0	3	516	120	46	0	1,037

- Unit: kg/year
- The amount of dioxins is measured in mg-TEQ/year.
- The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.
- Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.

# Tahara Plant

● Location: Tahara-cho, Atsumi-gun, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	104	64
		120	53
		142	60
	Heating furnace	144	48
	Oven	184	63
	Melting furnace	144	61
	Gas turbine	70	41
P.M.	Boiler	0.05	0.01
		0.2	0.09
	Heating furnace	0.2	0.06
	Oven	0.2	0.03
	Melting furnace	0.2	0.01
Gas turbine	0.05	0.01	
SOx	(Area-wide total pollutant control)	62.2	13.2
Dioxin (3)	Melting furnace	20	1.4
	Oven	20	0.07

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>NHr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- The values newly reported are based on the Law Concerning Special Measures against Dioxins with the unit of ng-TEQ/m<sup>3</sup>N

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		13,200	3,700	10,200
pH	5.0 - 9.0	7.1	6.6	6.8
BOD	—	5.3	0.6	2.6
COD	25 (20)	10.4	6.4	8.7
SS	30 (20)	2.1	0.4	1.1
Oil	2	0.5	less than 0.1	0.2
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	1.7	less than 0.1	0.8
Zinc	5	0.2	0.05	0.09
Soluble iron	10	0.06	less than 0.05	0.005
Soluble manganese	10	0.7	less than 0.05	0.2
Total nitrogen	15	9.6	4.9	6.7
Total phosphorus	2	0.8	less than 0.02	0.2

- \*Note 1. The control values for COD and SS show the highest value (daily average).
  - \*Note 2. Discharged water volume unit: m<sup>3</sup>/day
  - \*Note 3. All figures are shown in mg/l, except for the pH item.
  - \*Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropane, thiuram, simazine, thioencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Zinc compounds (soluble)	124,349	0	291	12,190	3,065	0	0	108,803
Bis (2-ethylhexyl) adipate	4,491	0	0	4,491	0	0	0	0
Ethylbenzene	114,563	152	0	0	0	0	0	114,411
Ethylene glycol	1,969,750	0	0	142	0	0	0	1,969,608
Ethylene glycol monoethyl ether	24,841	7,396	0	0	0	0	17,075	370
Xylene	2,215,302	1,092,231	0	0	0	477,435	103,567	542,069
2-Ethoxyethyl acetate	4,208	3,451	0	0	0	0	757	0
2-Methoxyethyl acetate	33,095	12,823	0	0	0	20,272	0	0
N,N-Dimethylformamide	6,435	2,707	0	0	0	3,728	0	0
Organic tin compounds	23,426	0	0	1,085	274	0	0	22,067
Dioxin	250	250	0	0	0	0	0	0
Copper salts (water-soluble, except complex salts)	4,308	0	2	1,131	296	0	0	2,879
Toluene	1,486,934	501,677	0	0	0	1,389	19,709	964,159
Lead and its compounds	9,241	0	12	625	157	0	0	8,447
Nickel compounds	20,735	0	192	10,753	2,740	0	0	7,050
Barium and its compounds (soluble)	4,400	0	0	344	110	0	0	3,946
Hydrazine	1,852	0	0	0	0	0	0	1,852
Phenol	16,071	0	0	0	0	0	0	16,071
Bis (2-ethylhexyl) phthalate	32,613	0	0	0	0	0	0	32,613
Hydrofluoric acid and its compounds (soluble)	346,004	0	2,297	5,146	137	3	0	338,421
Benzene	155,853	126	0	0	0	0	0	155,727
Boron and its compounds	5,968	176	343	624	156	0	0	4,669
Poly (oxyethylene) nonylphenyl ether	4,826	0	1	0	0	0	4,825	0
Formaldehyde	18,490	6,151	0	0	0	0	12,339	0
Manganese and its compounds	27,320	0	554	8,173	1,914	0	0	16,679
Methyl-1,3-phenylene diisocyanate	377,406	0	0	0	0	0	9,422	367,984
Tris (2-Chloroethyl) phosphate	1,286	0	0	0	0	0	64	1,222

- Unit: kg/year
- The amount of dioxins is measured in mg-TEQ/year.
- The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.
- The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.
- Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.

# Teiho Plant

● Location: Teiho-cho, Toyota City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	144	85
P.M.	Boiler	0.2	0.003
SOx	(Area-wide total pollutant control)	1.9	1.3

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		390	110	200
pH	5.8 - 8.6	7.5	6.5	7.1
BOD	25 (20)	6.8	0.2	2.3
COD	—	9.6	5.2	7.2
SS	30 (20)	3.8	0.1	1.2
Oil	2	0.5	0.1	0.1
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	1.1	less than 0.1	0.2
Zinc	5	0.5	0.03	0.09
Soluble iron	5	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	5	less than 0.05	less than 0.05	less than 0.05
Total nitrogen	40	28	3.2	12.2
Total phosphorus	3	2.8	0.2	0.8

- ★Note 1. The control values for BOD and SS show the highest value (daily average).  
 ★Note 2. Discharged water volume unit: m<sup>3</sup>/day  
 ★Note 3. All figures are shown in mg/l, except for the pH item.  
 ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Xylene	4,891	1,314	0	0	0	0	0	3,577
Toluene	8,661	2,818	0	0	0	0	0	5,843
Bis (2-ethylhexyl) phthalate	2,704	0	0	0	0	0	0	2,704
Benzene	1,024	0	0	0	0	0	0	1,024
Methyl-1,3-phenylene diisocyanate	3,233	0	0	0	0	0	0	3,233

- Note 1. Unit: kg/year  
 Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.  
 Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Hirose Plant

● Location: Nishihirose-cho, Toyota City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler (3)	144	98
	Gas turbine (4)	120	43
P.M.	Boiler (3)	0.3	0.005
	Gas turbine (4)	0.1	less than 0.001
SOx	(Area-wide total pollutant control)	62.2	13.2

- The control values are shown in ppm for NOx, g/m<sup>3</sup>N for P.M., and m<sup>3</sup>N/hr for SOx. The SOx item must follow the area-wide total pollutant control stipulated in Aichi Prefectural Ordinances.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.
- Added because of installation of boiler facilities in FY2000.
- Added because of installation of gas-turbine facilities in FY2000.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		2,300	600	1,200
pH	5.8 - 8.6	7.7	6.9	7.4
BOD	25 (20)	2.3	less than 0.1	0.8
COD	—	3.4	1.4	2.2
SS	30 (20)	2	0.1	0.6
Oil	2	0.2	less than 0.1	0.02
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	less than 0.1	less than 0.1	less than 0.1
Zinc	5	0.06	0.01	0.02
Soluble iron	10	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	10	less than 0.05	less than 0.05	less than 0.05
Total nitrogen	15	5	1.4	2.6
Total phosphorus	2	1.4	0.1	0.5

- ★Note 1. The control values for BOD and SS show the highest value (daily average).  
 ★Note 2. Discharged water volume unit: m<sup>3</sup>/day  
 ★Note 3. All figures are shown in mg/l, except for the pH item.  
 ★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.
- Note that the abbreviations mean the following.  
 \*pH: Hydrogen ion concentration  
 \*BOD: Biochemical oxygen demand  
 \*COD: Chemical oxygen demand  
 \*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Polymer of 4-(2-oxocyclohexylidene)phenol and 1-(3-oxo-2-propoxy)propane	1,491	0	0	74	0	0	0	1,417
Xylene	23,823	23,726	0	0	0	0	0	97
2-Ethoxyethyl acetate	1,222	1,222	0	0	0	0	0	0
Toluene	5,735	5,577	0	0	0	0	0	158
Hydrofluoric acid and its compounds (solubles)	16,877	0	0	0	0	0	15,252	1,625

- Note 1. Unit: kg/year  
 Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.  
 Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Kasugai Housing Works

● Location: Kamiya-cho, Kasugai City, Aichi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	130	86
P.M.	Boiler	0.1	0.001

- The control values are shown in ppm for NOx, g/m<sup>3</sup>-N for P.M.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		290	120	190
pH	5.8 - 8.6	7.8	6.7	7.2
BOD	25 (20)	4.7	0.1	1.6
COD	—	16.2	5.2	7.8
SS	30 (20)	4.6	0.4	1.5
Oil	2	1.9	0.1	0.5
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	15	0.4	less than 0.1	less than 0.1
Zinc	5	0.08	less than 0.1	0.03
Soluble iron	10	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	10	0.2	less than 0.05	0.1
Total nitrogen	40	22.2	6.7	12.5
Total phosphorus	3	1.5	0.2	0.5

★Note 1. The control values for BOD and SS show the highest value (daily average).

★Note 2. Discharged water volume unit: m<sup>3</sup>/day

★Note 3. All figures are shown in mg/l, except for the pH item.

★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.

\*pH: Hydrogen ion concentration

\*BOD: Biochemical oxygen demand

\*COD: Chemical oxygen demand

\*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling	
Ethylbenzene	1,191	1	0	0	0	0	1,190
Xylene	6,238	679	0	0	0	0	5,559
Organic tin compounds	1,177	0	0	94	24	0	1,059
Toluene	9,420	345	0	0	0	0	9,075
Lead and its compounds	1,092	0	0	92	17	0	983
Bis (2-ethylhexyl) phthalate	3,388	0	0	0	0	0	3,388
Benzene	1,588	1	0	0	0	0	1,587

Note 1. Unit: kg/year

Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.

Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

# Tochigi Housing Works

● Location: Daikoji-cho, Tochigi City, Tochigi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value (1)	Actual measurement (2)
NOx	Boiler	150	54
P.M.	Boiler	0.1	0.008

- The control values are shown in ppm for NOx, g/m<sup>3</sup>-N for P.M.
- The actual measurements of NOx and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		160	50	90
pH	5.8 - 8.6	7.9	7.3	7.6
BOD	25 (20)	4.9	0.1	1.7
COD	—	7.6	1.4	3.1
SS	50 (40)	4	1	1.6
Oil	5	1.8	1	1
Copper	3	less than 0.01	less than 0.01	less than 0.01
Fluorine	8	less than 0.1	less than 0.1	less than 0.1
Zinc	5	0.5	0.09	0.2
Soluble iron	3	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	3	0.1	less than 0.05	0.007
Total nitrogen	120 (60)	18.8	7.3	12.1
Total phosphorus	16 (8)	0.1	0.03	0.1

★Note 1. The control values for BOD, SS, total nitrogen and total phosphorus show the highest value (daily average).

★Note 2. Discharged water volume unit: m<sup>3</sup>/day

★Note 3. All figures are shown in mg/l, except for the pH item.

★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.

\*pH: Hydrogen ion concentration

\*BOD: Biochemical oxygen demand

\*COD: Chemical oxygen demand

\*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

None (This is because the actual amount of those substances handled that are designated under the PRTR law is below the amount of substances that requires reporting.)

## Yamanashi Housing Works

● Location: Hatta-mura, Nakakoma-gun, Yamanashi Prefecture

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value <sup>(1)</sup>	Actual measurement <sup>(2)</sup>
NO <sub>x</sub>	Boiler	150	85
	Oven	230	59
P.M.	Boiler	0.1	0.004
	Oven	0.2	0.002

1. The control values are shown in ppm for NO<sub>x</sub>, g/m<sup>3</sup>-N for P.M.
2. The actual measurements of NO<sub>x</sub> and P.M. refer to maximum values with respect to the control values for each particular target equipment.

## ● Water Pollution Data

(Conforming to the Water Pollution Prevention Law and Prefectural Ordinances)

Substance	Control value	Actual measurement		
		Maximum	Minimum	Average
Water Discharged		180	100	140
pH	5.8 - 8.6	7.7	6.7	7.1
BOD	30 (20)	15	1	4.7
COD	30 (20)	9.8	2.4	5.1
SS	50 (30)	5.5	0.6	1.3
Oil	5	1.7	0.1	0.8
Copper	1	less than 0.01	less than 0.01	less than 0.01
Fluorine	1	less than 0.1	less than 0.1	less than 0.1
Zinc	1	0.5	0.08	0.2
Soluble iron	1	less than 0.05	less than 0.05	less than 0.05
Soluble manganese	1	0.06	less than 0.05	0.007
Total nitrogen	120 (60)	17.7	6	10.1
Total phosphorus	16 (8)	0.2	less than 0.02	0.06

★Note 1. The control values for BOD, COD, SS, total nitrogen and total phosphorus show the highest value (daily average).

★Note 2. Discharged water volume unit: m<sup>3</sup>/day

★Note 3. All figures are shown in mg/l, except for the pH item.

★Note 4. There are some other control parameters whose actual measurements are below the N.D. level. They include the following: phenol, cadmium, cyanide, organophosphorus compound, lead, chromium (VI) compound, arsenic, total mercury, alkylmercury, polychlorinated biphenyl, total chromium, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiram, simazine, thiobencarb, benzene, and selenium.

Note that the abbreviations mean the following.

\*pH: Hydrogen ion concentration

\*BOD: Biochemical oxygen demand

\*COD: Chemical oxygen demand

\*SS: Concentration of suspended solids in water

## ● PRTR-Target Substances

None (This is because the actual amount of those substances handled that are designated under the PRTR law is below the amount of substances that requires reporting.)

## Environmental Center

● Location: Motomachi, Toyota City, Aichi Prefecture

The Environment Center is an energy recovery plant next to Motomachi plant. By incinerating combustible waste, it generates electricity and steam to be used as energy resource at plants. For details on the Environmental Center see Environmental Report 1998.

## ● Air Pollution Data

(Conforming to the Air Pollution Control Law and Prefectural Ordinances)

Substance	Equipment	Control value <sup>(1)</sup>	Actual measurement <sup>(2)</sup>
SO <sub>x</sub>	Plant No.1 <sup>(3)</sup>	34.3	13.2
	Plant No.2 <sup>(4)</sup>	52.7	6.4
NO <sub>x</sub>	Plant No.1 <sup>(3)</sup>	175	150
	Plant No.2 <sup>(4)</sup>	95	28.2
P.M.	Plant No.1 <sup>(3)</sup>	0.03	0.02
	Plant No.2 <sup>(4)</sup>	0.03	0.003
Hydrogen chloride	Plant No.1 <sup>(3)</sup>	150	47.7
	Plant No.2 <sup>(4)</sup>	150	10.6
Dioxin	Plant No.1 <sup>(3)</sup>	80	0.09
	Plant No.2 <sup>(4)</sup>	80	0.4

1. Regulation units are as follows: NO<sub>x</sub>:ppm, P.M.:g/m<sup>3</sup>-N Chloride:Hydrogen:ppm, Dioxin: ng-TEQ/m<sup>3</sup>-N SO<sub>x</sub> is K regulation value the emission volume calculated by K=9: m<sup>3</sup>-N /Hr
2. The actual measurements of NO<sub>x</sub>, P.M., Hydrogen Chloride and Dioxin refer to maximum values with respect to the control values for each particular target equipment. The value of SO<sub>x</sub> refer to the most severe measurements with respect to the calculated control values.
3. Since Plant No.1 generates steam to recover energy, it is subjected to restriction as a boiler.
4. Plant No.2 is subjected to restriction as a incinerator.

## ● PRTR-Target Substances

Substance	Amount handled	Released volume		Transferred volume			Volume removed	Consumption volume
		Air	Water area	Waste	Company-controlled type landfills	Recycling		
Dioxin	7,554	93	0	5,968	1,493	0	0	0

Note 1. The amount of dioxins is measured in mg-TEQ/year.

Note 2. The term 'volume removed' above refers to the volume of substances subject to PRTR that are incinerated, neutralized, broken down, or changed to other substances through chemical reactions in the particular plant.

Note 3. The term 'consumption volume' refers to the volume of substances subject to PRTR that are changed to other substances through chemical reactions or, are contained in or accompanied with products and transported outside the particular plant.

Note 4. Amount of dioxins handled: So mentioned because the manual for estimating the amount of substances released from the PRTR pilot business says that the concept of 'handled' in a broader sense also covers what has been generated 'unintentionally' resulting from business activities.