


Data

Independent Practitioner's Assurance 



## Site Data (Japan)

# Koriyama Plant

## Overview

<b>Year of Establishment</b>	1995
<b>Location</b>	Koriyama, Fukushima Prefecture
<b>Main Products</b>	Hydraulic cylinders, swivel joints, gear pumps
<b>Site/Green Landscape (1,000 m<sup>2</sup>)</b>	297/123
<b>Number of employees</b>	443
<b>Date of ISO14001 certification acquisition</b>	July 2002

\* The number of employees includes those working for Komatsu affiliates on the premises.

\* The number of employees as of the end of March 2014.

## Major Performance

Environmental impact		Energy consumption		
Item	Actual value	Item	Actual consumption	Converted to calorie equivalents (GJ)
Total CO <sub>2</sub> emissions	9,278 t-CO <sub>2</sub>	Electricity	9,334 MWh	90,230
NO <sub>x</sub> total amount	43,046 kg	Heavy oil A	1,482 kl	57,946

SOx total amount	1,953 kg	Kerosene	0 kl	0
Total emissions of waste	991 t	Light oil	0 kl	0
Amount recycled	991 t	Town gas	0 Nkm <sup>3</sup>	0
Recycling rate	100 %	LPG	559 t	28,079
BOD emissions	76 kg	Other		0
COD emissions	166 kg	Total		176,256
Wastewater	14,852 m <sup>3</sup>			
Output of in-house power generation	5,759 MWh			

\* Refer to the Data on Environmental Impact Resulting from Business Activities for details on the methods used to calculate amounts.

\* Total emissions of waste are expressed as a composite of the amount recycled (excluding valuables) and the amount disposed.

\* Recycling rate is calculated by dividing the amount recycled (including valuables) by the amount generated (including valuables).

\* Total emissions of BOD and COD are calculated by multiplying the average concentration by the amount of wastewater.

\* The heat energy conversion factor is calculated in keeping with Greenhouse Gas Emission Calculation - Reporting Manual, which is based on the act on Promotion of Global Warming Countermeasures.

## Compliance Conditions to Major Regulations

Air				
Item	Unit	Facility	Regulated value	Actual value
Nitrogen oxides (NOx)	ppm	Cogeneration engine	760	750

Sulfur oxides (SOx)	-	K-value regulation	11.5	0.46
Soot and dust	g/m <sup>3</sup> N	Baking (electric) furnace	0.2	Less than 0.003
	g/m <sup>3</sup> N	Cogeneration engine	0.2	0.054

\* Regulated values are in accordance with the Air Pollution Control Law and local regulations.

Wastewater					
Item	Regulated value according to the Water Pollution Control Law	Regulated value	Actual value		
			Maximum	Minimum	Average
pH	5.8-8.6	5.8-8.6	7.6	6.6	7.1
BOD (Biochemical oxygen demand)	160 mg/l	40	18.0	ND	5.1
COD (Chemical Oxygen Demand)	160 mg/l	40	18.0	3.1	11.2
Suspended solids (SS)	200 mg/l	70	4.9	1.0	2.7
Mineral oils	5 mg/l	5	ND	ND	ND
Copper	3 mg/l	3	ND	ND	-
Zinc	2 mg/l	2	ND	ND	-
Nitrogen	120 mg/l	120	18.0	18.0	-
Phosphorus	16 mg/l	16	4.4	4.4	-
Cadmium	0.1 mg/l	0.1	ND	ND	-
Lead	0.1 mg/l	0.1	ND	ND	ND
Chromium (VI)	0.5 mg/l	0.1	ND	ND	ND
Trichloroethylene	0.3 mg/l	0.3	ND	ND	-
Tetrachloroethylene	0.1 mg/l	0.1	ND	ND	-

Dichloromethane	0.2 mg/l	0.2	ND	ND	-
1,1,1-trichloroethane	3 mg/l	3	ND	ND	-

\* Regulated values are in accordance with the Water Pollution Control Law and local regulations.

\* ND ("not detected") indicates a value below the lower limit of detection.

\* ND is considered to be the lower limit of detection when calculating the average.

\* Other items are confirmed to be below the regulated value.