

# Domestic Group Companies SITE REPORT 2009

## NGK Adrec Co., Ltd.

**Address** 3040, Misano, Mitake-cho, Kani-gun, Gifu 505-0112, Japan

**Major Production Items** Manufacture of various refractories and ceramic filters



### Brief Explanation of the Company

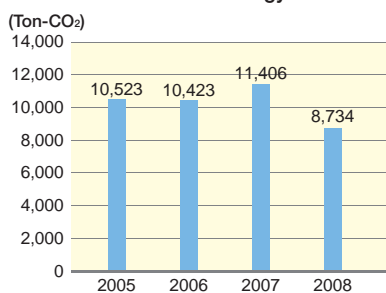
**Basic Philosophy:** Under the basic corporate philosophy of 'Provision of products that contribute to a better social environment and creation of new values,' the company is contributing to the global environment through corporate activities including development of environmentally-conscious products, in order to create comfortable environment for the next generation.

**Action Policy:** NGK Adrec is determined to utilize resources to prevent public pollution and assess the impact of waste issues on the environment in manufacturing, developing and service provision activities as well as products in order to continuously improve necessary measures and prevent problems.

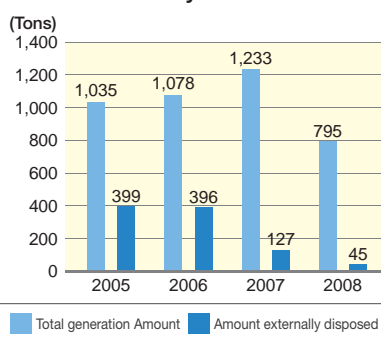
### Activities in FY2008

- Reduction of Total Volumes of Material Resources and By-Products (Actions against the Worst 3 Issues)
  - Clay powder: Improvement of intermediate yield and reuse ratio for raw materials.
  - Sludge: Introduction of filter press and reduction of material loss in each section.
  - Brick scraps: Lifetime extension of kiln furniture, plaster form recycling and lifetime extension.
- Energy Saving, Reduction of Using Fossil Fuels, Electricity and Water (Promotion Under Total CO<sub>2</sub> Volume Reduction and CO<sub>2</sub> Reduction Project)
  - Firing curve integration, increase of kiln loading effectiveness
  - Optimization of firing condition
  - Revision of blower operation method, introduction of high-efficiency voltage transformer
  - Promotion of expanded use of rainwater, company-wide activities to raise awareness for water and electricity conservation.
- Compliance
  - Monitoring and measurement of water quality, air quality, vibration and noise
- Contribution to the Local Society
  - Cooperation to Mitake-Cho and other municipalities for creating affluent cities
  - Active participation in voluntary activities

Shift of Generation of Energy-Oriented CO<sub>2</sub>



Generation of By-Products



Amount of PRTR-listed Substances handled, released and transferred (Tons)

Substances	Amount Handled	Amount released					Amount transferred	
		Atmosphere	Waters	Soil	Landfill	Sewerage	Other external emissions	
Vanadium pentoxide	1.16	0.00	0.00	0.00	0.00	0.00	0.00	
Styrene	3.50	0.00	0.00	0.00	0.00	0.00	0.00	
Boron and/or its compounds	2.30	0.00	0.00	0.00	0.00	0.00	0.00	

### Accidents and Law Suits Related to the Environment

Nothing

### Data relating to Pollution Prevention

Air		
Substances (unit)	Regulation values	Actual measurement
NO <sub>x</sub> (ppm)	350	20 ~ 65
Soot and dusts (g / Nm <sup>3</sup> )	0.15	0.009
SO <sub>x</sub> (Nm <sup>3</sup> / Hr)	10	0.004 ~ 0.006

Note: Applicable Laws Pollution Control Agreement with Mitake-cho

Effluent		
Substances (unit)	Regulation values	Actual measurement
pH	5.8 ~ 8.6	6.5 ~ 7.2
SS (mg/l)	60	1
BOD (mg/l)	30	0.7 ~ 3.3
COD (mg/l)	30	2.9 ~ 4.6
Oil (mg/l)	5	1
Nitrogen (mg/l)	120*	1.9 ~ 4.3
Phosphorus (mg/l)	16*	ND

Note: Applicable Laws:  
 Pollution Control Agreement with Mitake-cho  
 \* Voluntary control

pH: Concentration of hydrogen ions  
 SS: Suspended solids in water  
 BOD: Biochemical oxygen demand  
 COD: Chemical oxygen demand  
 ND (not detectable): Values below the determination limit