

Registration No.	Number 00091		
Registration Date	September 27, 2011	Registration Category	Category 2

Name (Model, etc.)	The 1,100°C class pre-mixed type low Nox combustor
Location	Seiro Town, Kitakannbara District, Niigata Pref
	Tohoku Electric Power Co., Inc. Higashi Niigata Thermal Power Station
Owner (Custodian)	Tohoku Electric Power Co., Inc. Higashi Niigata Thermal Power Station
Manufacturer (Company)	Mitsubishi Heavy Industries, Ltd.
Year Manufactured	1984
Reason For Selection	This is a Dry Low NOx combustor of the premix combustion type. Mitsubishi Heavy Industries led the world in combustors application of this type and succeeded in making them commercially viable and practical use. At the time when this combustor was developed, these combustors of diffusion combustion type were commonly-used and thought that water or steam injection was an effective means for NOx abatement. This DLN combustor was introduced as the cutting-edge technology which was materialized as the world's first use by MHI, and it was able to achieve a drastically low NOx emission without any use of water or steam injection to the combustors. In addition, the combustor has an air bypass mechanism. This enabled us to enhance flame stability during starting period and operation under various load. Higashi-Niigata Thermal Power Station Unit No. 3 of the Tohoku Electric Power, powered by MW-701D gas turbines equipped with DLN combustors, started commercial operation in 1984. Even now, as a countermeasure for reducing NOx emission level from gas turbines, the DLN combustors of lean premix combustion type are widely-used. This DLN combustor is taking an important role that has been demonstrated and operated as the proto type combustor in the world which will contribute to the pollution control of the environment protection.
Registration Standard	1 - B

Open/Closed to Public	Open to Public
Photo  The photograph shows three large, metallic industrial components, likely parts of a gas turbine combustor, displayed on a dark surface in a museum setting. From left to right: a smaller, complex component with various ports and a flange; a larger, cylindrical component with a ribbed exterior and a flange; and a long, conical component with a flange at the base. Each component has a small identification tag in front of it. The background is a solid blue wall.	
Other useful information	