

The Minister of the Environment's Opinions on the Draft Environmental Impact Statement for the Power Generation Facility Unit No.3 at Higashi Power Station in Tokuyama Factory

On April 17, 2009, the Ministry of the Environment (MOE) submitted the Minister's opinions on the draft environmental impact statement for the Unit No.3 at Higashi Power Station in Tokuyama Factory, to the Ministry of Economy, Trade and Industry (METI) in accordance with the provisions of the Environmental Impact Assessment Law and the Electric Utility Law.

This project is to build a new thermal power generation facility (0.3 million kW) and close the existing one (0.035 million kW). It will lead to future increase in emissions of CO<sub>2</sub>, soot and smoke, etc from the power station. So, especially as to CO<sub>2</sub>, careful consideration is needed in view of "Action Plan for Achieving a Low-Carbon Society".

For these matters, some particular circumstances in this project are recognized, as follows;

- The CO<sub>2</sub> emissions are reduced by using cogeneration systems including steam utilization.
- By the replacement of the existing facility, CO<sub>2</sub> emissions during the first commitment period will be reduced.
- This is a facility to obtain electric power and steam necessary for the own corporation's production.
- The proponent is responsible for the future correspondence to the CO<sub>2</sub> emissions and reducing them is possible by reinforcing measures in the whole factory.
- The location restricts use of natural gas as a fuel and if the proponent purchased electric power from general electric utilities, it would not lead to reduce CO<sub>2</sub> emissions.
- Through producing materials for solar cells, future CO<sub>2</sub> emissions will be reduced as a whole.

Taking these into consideration totally, to reduce as much environmental impact as possible, the Minister's opinions pointed out the need to take following measures appropriately:

(1) Greenhouse gases

- Maximize the effect of the replacement of the power generation facility and reduce as much CO<sub>2</sub> emissions from whole Tokuyama Factory as possible to contribute fully to achievement of the target of the first commitment period.
- As to the new power facility, improve the total thermal efficiency as much as possible and introduce a co-combustion equipment for biomass and others as the highest level of an adoptable cogeneration system.
- Adopt coals whose basic unit for CO<sub>2</sub> emissions are as low as possible and introduce co-combustion for biomass and others as much as possible.
- Maintain and operate the power generation facilities to reduce as much CO<sub>2</sub> emissions as possible as a whole by avoiding low load operation, keeping high utilization of power generation facilities which has high efficiency and other ways.
- Consider and take further measures including energy saving and install solar cells on roofs of buildings, the premises, etc wherever possible, as the entire Tokuyama factory and Tokuyama Corporation.
- Try not to increase special supply by working on the supplied companies to take measures including further energy saving.
- Follow up the above-mentioned measures, effects, etc and if necessary, take additional proper measures. If a new framework for reduction of green house gases beyond 2013 are developed, take that into account.

(2) Air Pollutants

- Maintain and manage thoroughly the NO<sub>x</sub> removal system for exhaust gas and electrostatic precipitator to reduce concentrations of soot and dust, NO<sub>x</sub> and others. Furthermore, when better NO<sub>x</sub> removal technique is developed and if necessary, take additional proper measures to reduce NO<sub>x</sub> more.
- Measure the emissions of trace substances contained in coals including heavy metals as soon as starting running and check the validity of the prediction. Monitor them properly in case that properties of used fuels differ from those in the project plan.

(3) Shunan Bulk Terminal

- Request proper measures on fine particles of coals when Shunan Bulk Terminal become in operation