

JFE Engineering to Provide Incinerator Technology to Chinese Firm

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JFE Engineering Corporation

Tokyo, April 14, 2003 – JFE Engineering Corporation announced today that it has signed a licensing agreement with Changzhou Lucky Environmental Protection Equipment Engineering Co., Ltd. to provide the Chinese firm with design and manufacturing technology for municipal waste stoker incinerators that have daily processing capacities varying between 30 to 450 tons.

Headquartered in Changzhou in China's eastern Jiangsu Province, Changzhou Lucky Environmental Protection Equipment Engineering specializes in incinerator and flue gas treatment facilities. The company is extensively involved in environmental projects planning, design and construction, as well as development and production of major equipment.

The 10-year licensing agreement covers JFE's three mainstay waste disposal technologies—stoker incinerators using JFE hyper grates, JFE-Limar semi-dry flue gas treatment equipment and a non-catalytic denitrification system. While providing these technologies, JFE also aims to cooperate with the Chinese firm in procurement of parts and materials in China for use in incineration plant projects in Japan and Southeast Asia.

JFE has a track record of delivering more than 100 stoker incinerators in Japan and other countries. Taking advantage of the latest licensing agreement to further its partnership with the Chinese firm, JFE intends to expand its technological presence in the fast growing environmental equipment market in China.

Profile of Licensee

Name of	Changzhou Lucky Environmental Protection Equipment
Company	Engineering Co., Ltd.
Head office	Changzhou, Jiangsu Province, China
Lines of business	Design, manufacture and installation of municipal waste incinerators
Annual sales	37 million yuan (about 560 million yen)

No. of employees 112

Established October 1998

Technologies for License

- Stoker incinerators using JFE hyper grates capable of treating diverse types of waste with high reliability and durability. Combined use of JFE's proprietary hyper
1. grate and advanced automated combustion control systems ensure stable, optimized combustion, minimizing pollutant emissions.

- JFE-Limar semi-dry flue gas treatment system in which hydrated lime slurry is
2. injected into incineration flue gas, accelerating reaction and efficiently removing harmful gases such as hydrogen chloride (HCl) and sulfur oxide (SO_x).

- Non-catalytic denitrification system in which ammonia and urea are injected into high-temperature zones of incinerators to decompose nitrogen oxide (NO_x) into
3. harmless nitrogen and water. A pioneer in the development of this technology, JFE has delivered a number of the systems to customers around the world.

JFE's Incinerator Technology Licensing Records

- 1) Cross-licensing of grate technology with Vølund of Denmark.
- 2) Licensing of flue gas treatment technology to ALSTOM of France.
- 3) Licensing of incinerator and flue gas treatment technologies to Jindo of South Korea.
- 4) Licensing of plastic bottle material and color separation technology and glass bottle color separation technology to IUT of Austria.

For further information, please contact:

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