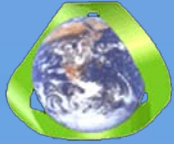


WTERT



Waste-to-**E**nergy Research
& **T**echnology Council

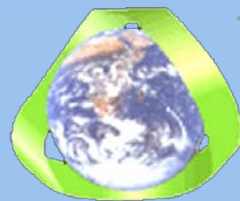
Advancing Sustainable Waste Management

WTERT (China)

PROGRESS REPORT

(2009-2010)

<http://www.wtert.cn>



WTERT
China

重慶科技學院
CHONGQING UNIVERSITY OF SCIENCE & TECHNOLOGY



- **WtERT China website**
- **Testing Research on MSW in CWtERT**
- **Current research work in CTWERT**
- **Government supports**

- WTERT-China web was resumed in June,2010. The website was updated under the instruction of Prof. Themelis. The website reports on the latest scientific research progress on WTE, informs the public about the WTE concepts and technologies, and provides a scientific basis for government decision-making.
- Major sections:
 - Policies & Regulations
 - Scientific literatures
 - News & Events
 - Technology Frontier
 - Public discussion



- (I). MSW management in China Major Problem Facing
 - 1). MSW yield increases continually
 - Total transported: 154 million tons (2008) ;
 - Centralized processing: about 100 million tons (66.8%)
 - 2). A serious shortage of processing capacity
 - MSW Landfills plants: 407
 - MSW Composting plants: 14
 - MSW Incineration plants (WTE): 74
 - Incineration capacity: 51,600 tons/day (2008)

(Source: China Urban Construction Statistics Yearbook – 2009)

- **No sorting and separate collection of MSW;**
- **All kinds of waste are collected mixed together. A lot of industrial waste, construction waste and medical waste are mixed with MSW**
- **MSW in China has more water and ash content. Its calorific value is very low (e.g. the calorific value of MSW in CQUST is twice of that of Tongxing WTE Plant)**
- **The southern MSW has higher calorific value than the northern;**
- **MSW has low organic content (< 30%) relatively. But it gradually increased, and the growth rate achieved 5% per year.**

(III) Testing on MSW composition by CWTERT

- Complete typical MSW composition and characteristics tests with seasonal change in China
- Started to accumulate MSW database in China

A sample of MSW composition (Chongqing)

TYPE District	Plastic	Glass	Wood	Textile	Paper	Metals	Soil	Kitchen Waste	Rock	Sample weight	Remarks
Jiulongpo	208.25 4.98%	14.30 3.42%	6.25 14.95%	40.45 0.97%	\	1.45 0.034%	2706.33 64.74%	1020.67 10.70%	8.95 0.21%	4180	泥土多 渝A22159
Gaoxin	778.45 10.81%	190.75 2.64%	26.15 0.36%	30.05 0.42%	43.10 0.60%	14.80 0.21%	\	6116.70 84.96%	\	7200	塑料多 渝A21982
Jiangbei	182.30 4.47%	20.50 0.50%	111.25 2.71%	38.10 0.93%	\	0.30 0.0074%	\	3725.95 91.34%	1.60 0.039%	4080	渝B69523
Sapingba	302.05 8.73%	37.15 1.07%	11.95 0.35%	45.55 1.32%	\	6.88 0.20%	\	3056.42 88.33%	\	3460	渝A13454
Beipei	236.2 4.47%	57.85 1.10%	15.2 0.29%	50.75 0.96%	\	0.3 0.006%	\	4914.7 93.08%	5 0.095%	5280	渝B86811
Yubei	501.4 10.23%	28.3 0.58%	36.6 0.75%	103.7 2.12%	\	0.5 0.01%	\	4222.85 86.17%	6.65 0.14%	4900	渝B60203

- ✓ **MSW pretreatment**
- ✓ **WTE hydraulic system**
- ✓ **Numerical analysis of MSW moving on the grate**
- ✓ **Evaluating different grates**
- ✓ **MSW gasification process**
- ✓ **Emission pollution control technologies**

- C-WTERT actively researches the social issues related to WTE. These studies provide strong support for government decision-making.
 - An example of sustainable economy support policy : the policy support on WTE industry in China;
 - WTE support policies: Study of international experience in waste management;
 - Research on policy to encourage MSW source separation in Chongqing
- Held an academic forum in May 2010



- The public in China are concerned the dioxin emissions from WTE plants. To release the pressure from the public, the Ministry of Environmental Protection (MEP) and China International Consulting Co. are putting a wide investigation on the impacts of WTE emissions. C-WTERT participates this investigation.



MEP officials meeting with C-WTERT

Thanks!

**Welcome to C-WTERT & Chongqing University of
Science and Technology (CQUST)**

