

Energy Efficiency Goals: Enhancing Compliance, Monitoring and Evaluation

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Experiences and Challenges in China

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1. CFLs in China, in general

- In 2006, the production was 2.4 billion, covering more than 85% globally.
- There are over 300 manufacturers, and about 100 with considerable scale.
- 48 have participated in the ENERGY STAR program and about 45 gained China Conservation Certification.



2. CFL related laws and standards

Currently in China, these laws include:

- The Energy Saving Law, P.R.China;
- Product Quality Law, P.R.China;
- Standardization Law, P.R.China;

2.1 CFL related standards

In China, CFL standards mainly include:

- Safety standard, equivalent to IEC;
- Performance standard, first implemented in 1998 and then revised in 2002. Now it is under the second revision;
- Energy Efficiency Standard, implemented in 2003;
- EMC (Electromagnetic Compatibility) standard, implemented in 2003;

3. Experiences, actions that have been carried out

Based on the laws, what China has done is:

- Establishing product standards, including;
 - Safety standard, equivalent to IEC;
 - Performance standard, first implemented in 1998 and then revised in 2002. Now it is under the second revision;
 - Energy Efficiency Standard, implemented in 2003;
 - EMC (Electromagnetic Compatibility) standard, implemented in 2003;

- Certificating (CFL) products;

- Implementing NSI continuously since 1998;

3.1 CFL related certifications

CQC, covering safety, performance and energy efficiency;
Energy Conservation Certification, for energy efficiency only;

NOTE: In 2007, the Chinese government has moved CSC into CQC.

3.1 CFL related certifications

How to implement: Cooperation between Certification Body and Testing Laboratory

Procedure:

Application - App. Accepted - CB consigns Lab for testing -
Lab tests (helps applicants complete technical corrections) -
Submit testing report - Factory inspection-Issue certificate -
after-certificate inspection

3.2 National Supervision and Inspection (NSI)

Since 1998, the Chinese government has implemented NSI on CFLs every year, covering from production line to market.

3.2 National Supervision and Inspection (NSI)

How NSI implemented: The government authorizes national level testing centers to do it

For CFLs:

NLTC compiles the plan - the government proves - detailed work: investigation, sampling, testing, technical analysis and reporting;

Plan Design:

1. objectives
2. specifications
3. representativeness
4. timing
5. implementation

Usually, a CFL NSI including the 2000 hour lumen maintenance test.

3.2 National Supervision and Inspection (NSI)

Example: NSI in 2006

Totally tested 61 model samples from 61 manufacturers, including:

- 10 large scales;
- 41 medium scales;
- 10 small scales;

Compliance Rate:

- By model: 39%
- By production: 81%

3.2 National Supervision and Inspection (NSI)

Conclusion:

Statistically, the large and medium scale manufacturers make 99% of all the CFLs and 81% of them are good products.

3.2 National Supervision and Inspection (NSI)

How to deal with non-compliance:

Normally, the manufacturers would be required to make corrections on their products; and retailers will be punished through confiscation and fine.

For those that caused big problems, the government will expose the brand in CCTV (China Central Television).

3.2 National Supervision and Inspection (NSI)

Share of test results (partially) with:

NDRC--Policy maker;

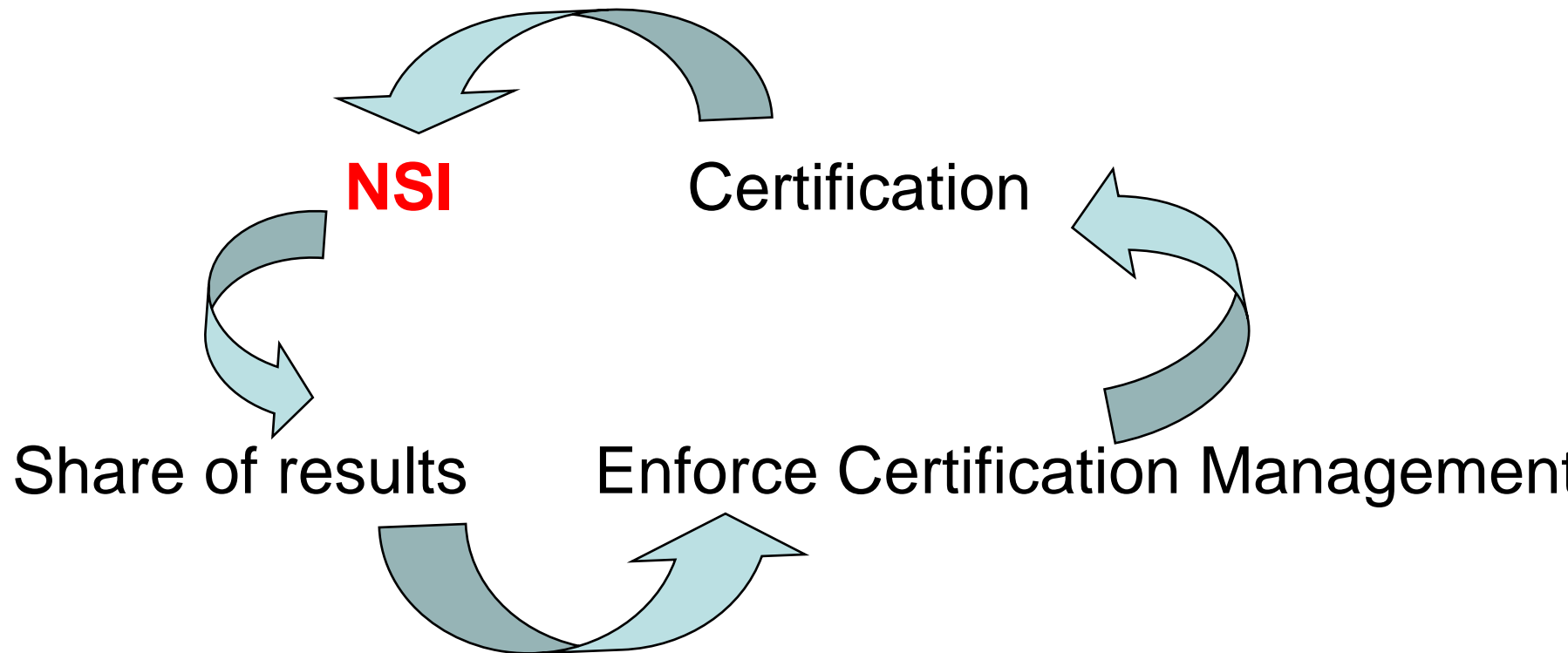
CQC--the biggest certification body in China, owned by the government;

CALI--industry association;

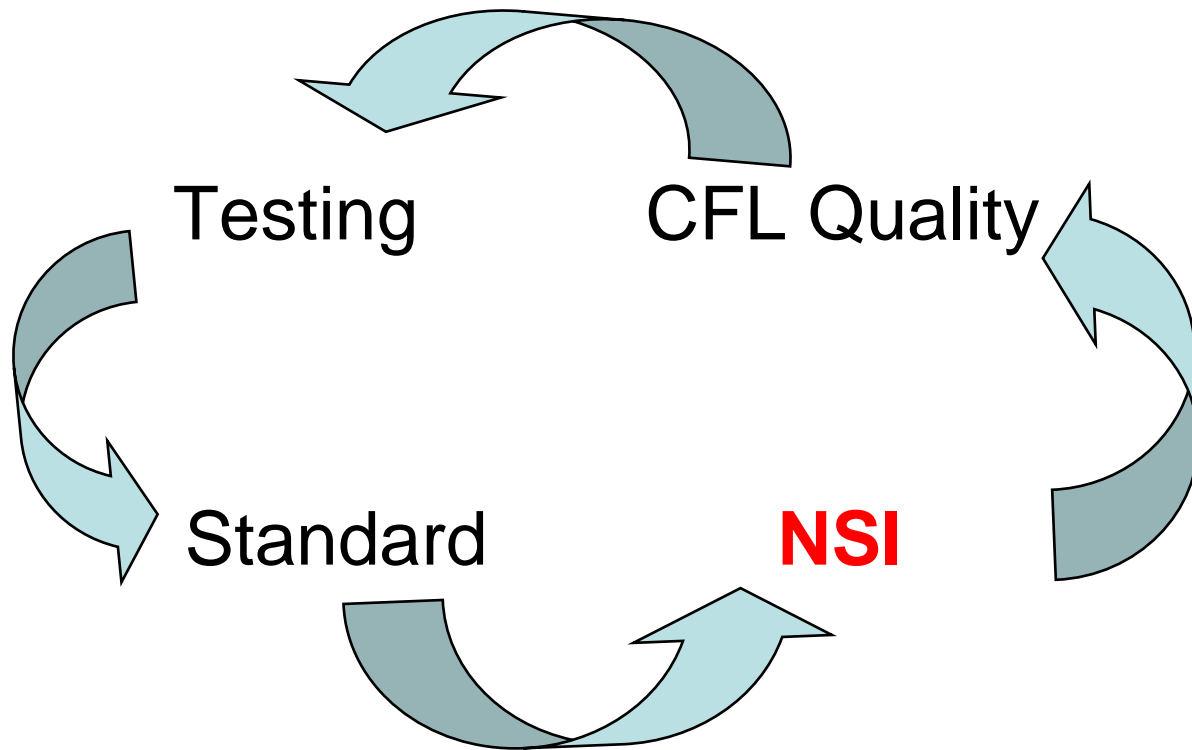
CNCA--testing and certification administration organization;

CONSUMERS-- the God!

3.3 Development of certification in China



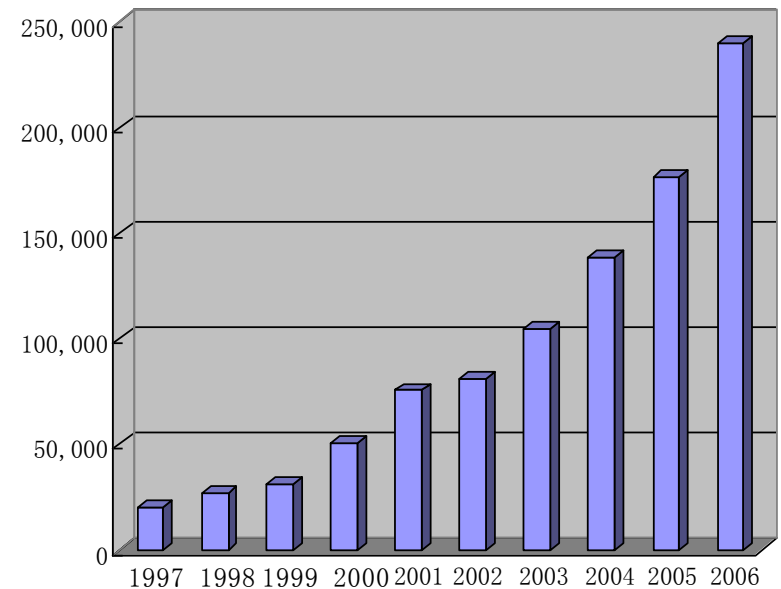
3.4 Development of CFLs in China



3.4 Development of CFLs in China



ten thousand pieces



3.5 A piece of news

CFL labeling in China:

NDRC, AQSIQ and SAC have issued the *Chinese Energy Efficiency Product Category, third phase*.

CFL, as one of the five products covered in this Category, has to be labeled for their efficiency from 1 June 2008.

LABEL will be supervised too, like certification.

4. Challenges

Domestically:

1. Bigger NSI

The biggest NSI on CFLs has been carried out in 2008. Over 100 models were sampled and under test.

2. Wider Product Scope

NSI on electronic ballast are undergoing. 40 models were sampled.

3. Wider sampling area

Planning to cover not only cities, big towns, but also countryside.

To be continued

4. Challenges

Domestically:

4. New programs

4.1 Ministry of Finance and NDRC has issued a program of CFL subsidy, in order to promote the usage all over China.

Amount: in 2008, 50 million; before 2011, another 100 million;

Subsidy ratio: 30%~50% of the total price.

Supervision plan: under designing

4.2 the government is actively involving in the GEF funded program, which aims at the market transformation from incandescent lamps to high efficiency lamps

4. Challenges

Internationally:

1. Quality

According to the Chinese law, products for exportation are not subject to NSI. Moreover, international buyers sometimes ignore the quality issues or have no testing capability. Anyway, complaints from buyers need to be smoothed.

2. Mercury

The biggest problem, except from the quality, of CFLs is mercury. We need to protect our environment at the time we save energy. Establishing a global mercury test method for CFL / FL would be of great help.

5. NLTC Suggestions

In order to enhance the CFL quality globally, NLTC suggests that:

1. Importers themselves and/or their governments should reinforce the quality control of imported products;
2. Establish an international technical platform to:
 - Realize the share of Experience, Information and Technology;
 - Promote mutual recognition of testing results;
 - Provide technical consultancy to policy makers of various countries.

5. NLTC Suggestions

The suggestions are based on experiences of NLTC's job:

- Writer of the first CFL performance standard of China;
- Has been undertaking NSI for ten years;
- Provides consultancy to policy makers;
- Provides services internationally to governments like: Australia, New Zealand, US, Cuba and Sweden;
- Getting authorized for international certifications like ENERGY STAR;

NLTC Current Focus:

- Revising the CFL performance standard;
- Carrying out research test on mercury content, which is a preparation for mercury inspection in the near future;

In order to promote the CFL quality, NLTC would like to:

- Provide service internationally;
- Work with people to establish the technical platform;

Summary

SUPERVISION is the most effective way of ensuring the quality of not only the product but also the certification.

Only by understanding the importance of this, we can realize the improvement of **QUALITY**.

Thank You!

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