



# Overview of Ex Regulation in China

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# Contents

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- 1** Regulatory Requirements
- 2** Regulating/Operation Systems
- 3** Ex Standardization in China
- 4** Products Certification Systems
- 5** Acceptance of Ex facilities/Installations
- 6** Conclusions

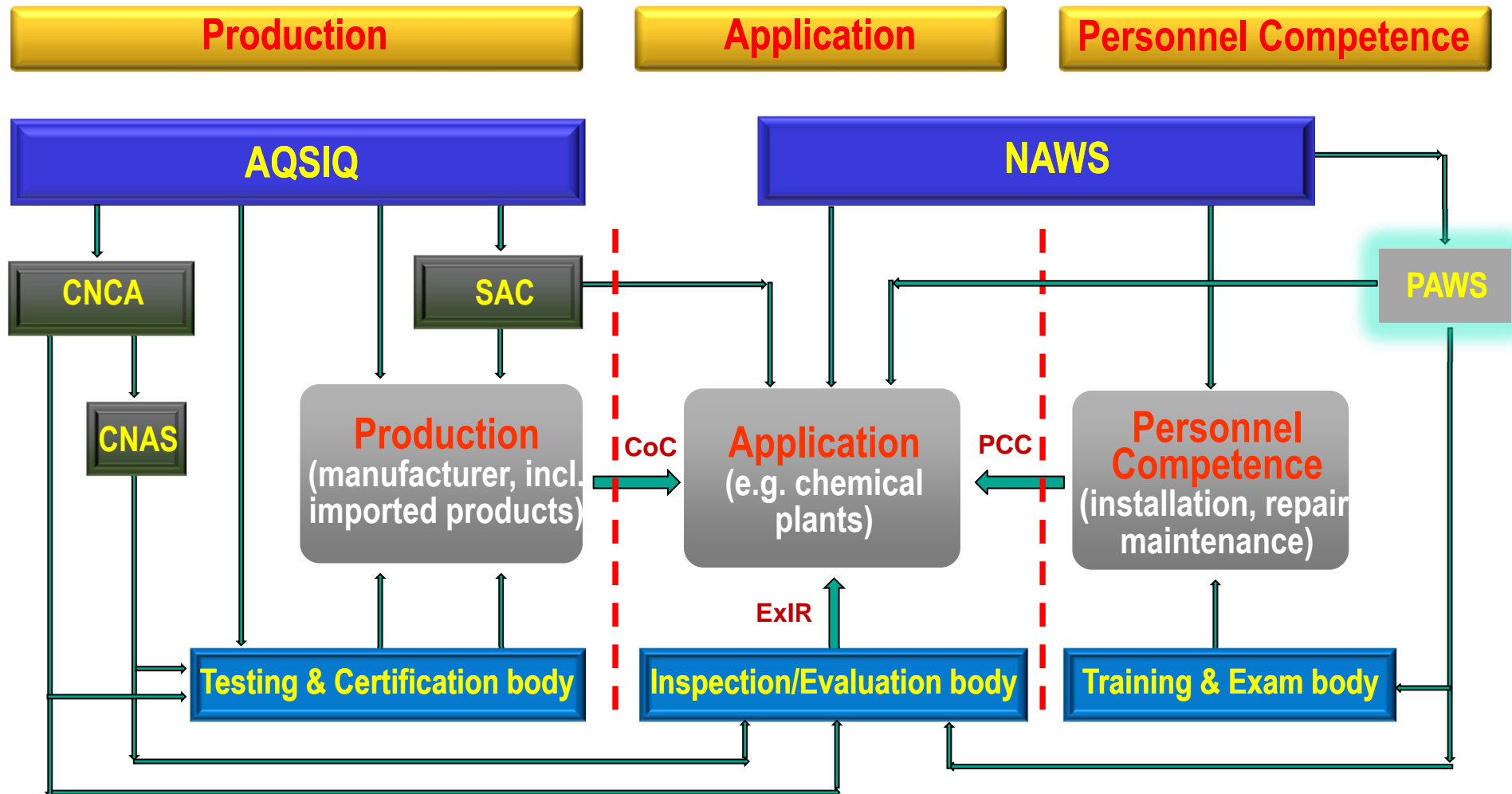


# Regulatory Requirements

- In China safety-related activities, including production and application of products, and personnel competence must obey the following:
  - ◆ **The Standardization Law**, and its Implementation Rules
    - all safety related standards (e.g. Ex) are defined as mandatory
    - mandatory standards must be complied with, otherwise it is forbidden to manufacture, sell or import products
  - ◆ **The Product Quality Law**, and its rules, relevant regulations
    - Industrial products relating to personal and property safety must comply with national mandatory standards.
  - ◆ **The Production Safety Law**, and its rules, relevant regulations
    - The design, installation, usage, maintenance and rebuild of safe equipments/products must comply with national standards.
    - Special operation personnel must hold personnel competence certificate (PCC)



# The Regulating/Operation Systems



■ **NAWS:** National Administration of Work Safety

■ **PAWS:** Provincial Administration of Work Safety



# Ex standardization in China

GB 12476 series for dust

- DIP A/B(tD)
- iD
- mD
- pD

GB 3836 series for gas:

- General	- Ex q
- Ex d	- Ex n
- Ex e	- Ex m
- Ex i	- IS system
- Ex p	- FISCO
- Ex o	- EPL Ga



Mainly including:

- Gas & dust
- Electrical & non-electrical

GB 25286 series for non-electrical:

- General
- Ex fr
- Ex d
- Ex c
- Ex b
- Ex k

- In addition, fundamental, application (area classification, installation, inspection, maintenance and repair) standards; regulations on design and acceptance of Ex installations; standards for gas detectors, heating trace, Industrial truck available
- About 70 Ex-related standards published in total



# Ex standardization in China (con't)

- Policy: preferential adoption of int'l standards (e.g. IEC, ISO, EN and etc)
- Majority of Chinese current Ex standards are identical or equivalent to IEC/EN standards
- Examples:
  - For non-electrical (gas/dust)

Type	GB standard	Int'l Standard
	GB 25286.1	Mod EN 13462-1
fr	GB 25286.2	Mod EN 13463-2
d	GB 25286.3	Mod EN 13463-3
c	GB 25286.4	Mod EN 13463-5
b	GB 25286.5	Mod EN 13463-6
k	GB 25286.6	Mod EN 13463-8

- For electrical (gas/dust)

Type	GB standard	Int'l Standard
	GB 3836.1	Mod IEC 60079-0
d	GB 3836.2	Idt IEC 60079-1
e	GB 3836.3	Mod IEC 60079-7
i	GB 3836.4 GB 3836.18 GB 3836.19	Mod IEC 60079-11 Idt IEC 60079-25 Idt IEC 60079-27
p	GB 3836.5	Mod IEC 60079-2
o	GB 3836.6	Idt IEC 60079-6
q	GB 3836.7	idt IEC 60079-5
n	GB 3836.8	Mod IEC 60079-15
m	GB 3836.9	Idt IEC 60079-18
	GB 12476.1	Idt IEC 61241-1-1 Idt IEC 61241-0
DIP, tD	GB 12476.1	Idt IEC 61241-1
iD	GB 12476.4	Idt IEC 61241-11
pD	GB 12476.7	Idt IEC 61241-4
mD	GB 12476.6	Idt IEC 61241-18



# Products Certification Systems

- All the Ex products used in China must be certified by Chinese testing and cert. bodies (e.g. NEPSI, CQST, PCEC) according to Chinese Ex standards







# Acceptance of Ex facilities/installations

- Regulations on Production Safety License (2004) specify that:
  - ▶ **For** enterprises manufacturing, storing, transporting and using hazardous chemicals, a Production Safety License is required
  - ▶ **Without** the license, it is forbidden to put into production
  - ▶ For getting the license, the Ex related facilities are required to be inspected against Ex by authorized inspection bodies (e.g. NEPSI):
    - verify the validity of Chinese Ex CoC
    - verify the suitability of equipment selected
    - check the products' conformity to standards
    - check the correctness of installation
    - confirm the compliance of "Entity Explosion Protection"
    - check whether employee for installation, maintenance and repair hold PCCs which is issued by a recognized training and exam body (e.g. NEPSI)
  - ▶ Every 3 years, re-inspection on Ex is necessary for renewal of the License.





# Conclusions

- China has established complete Ex standard systems, including gas/dust and electrical/non-electrical, all are compulsory standards
- Most of them are identical/equivalent to IEC/EN standards
- Chinese Ex Regulatory Requirements focus on the whole life-cycle of Ex:
  - Cert. of Ex products is mandatory in China, a national ExCoC is issued based on ISO Type 1
  - Ex facilities manufacturing, storing, transporting and using hazardous chemicals are required to be inspected every 3 years by authorized inspection bodies for receiving a Production Safety License.
  - People serving for installation, maintenance and repair of Ex equipment need to hold Chinese Personnel Competence Certificate (PCC)
- China highly recognizes the value of IECEx whole life-cycle certification schemes



谢 谢 !

**Many thanks for your attention!**

*For further information, please visit:*

[www.nepsi.org.cn](http://www.nepsi.org.cn) or [www.sitias.com.cn](http://www.sitias.com.cn)