



# International Personnel Certification Summit

The 21st Century Solution to Workforce Competitiveness



## Plumbing & Mechanical Inspector Certification

**Personnel Certification as a Means to  
Protecting Public Health & Safety**

*GP Russ Chaney, Chief Executive*

*THE IAPMO GROUP*

14 July 2004

# THE IAPMO GROUP

- **International Association of Plumbing & Mechanical Officials (IAPMO)**

- ~ **Code Development**
- ~ **Personnel Certification**
- ~ **International Symposiums**
- ~ **Education & Training**
- ~ **ANSI Accredited**



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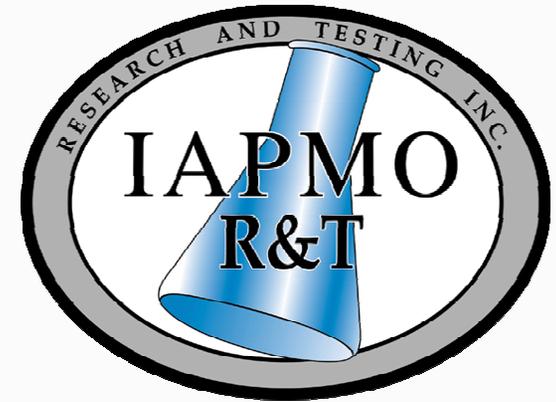
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# THE IAPMO GROUP

## ■ IAPMO Research & Testing

- ~ **Conformity Assessment Services**
- ~ **Standard Development**
- ~ **ISO 9000 QMS Registration**
- ~ **Witness Testing Program**
- ~ **ISO Guide 65 Compliant**



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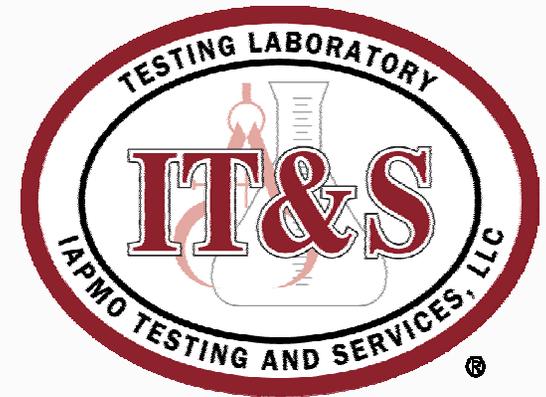
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## ■ IAPMO Testing & Services, LLC

- ~ NVLAP Accredited Laboratory
- ~ Toxicity Testing
- ~ Impact Analysis
- ~ Component Testing
- ~ Environmental Exposure & Corrosion Testing



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# THE IAPMO GROUP

## ■ IAPMO Evaluation Services

- ~ Building Product Conformity Assessment Program
- ~ Supporting NFPA 5000 Building Code
- ~ Pending ANSI Accreditation



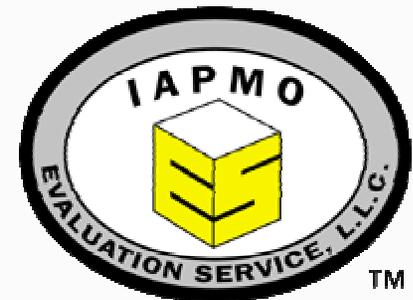
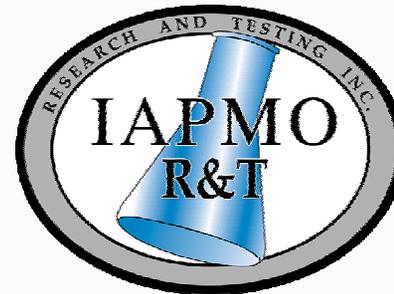
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*Turn-key Services for the Building Industry*



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# THE IAPMO GROUP

## ANSI Accredited Building Codes

- **Uniform Plumbing Code™**
  - **IAPMO/ANSI UPC 1-2003**
- **Uniform Mechanical Code™**
  - **IAPMO/ANSI UMC 1-2003**



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- ***C3 Codes are developed and maintained by the following organizations:***
  - ***THE IAPMO GROUP***
  - ***The National Fire Protection Association (NFPA)***
  - ***The Western Fire Chiefs Association (WFCA)***
  - ***The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)***

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## ■ *Why certify personnel?*

- **To measure & verify competency**
- **To verify specific qualifications against specific tasks**
- **To analyze an individuals periodic intellectual and vocational growth**
- **To permit institutional awareness of an individuals' baseline capabilities**
- **To instill confidence in the individual**

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# THE IAPMO GROUP

- ***Why certify personnel to an international standard?***
  - **globalization of domestic markets**
  - **To achieve a globally acceptable minimum standard for professional qualification**
  - **To establish an acceptable benchmark by which personal capabilities can be measured**
  - **To provide for a transparent, global certification scheme permitting career transfer**

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- ***What does 17024 mean to THE IAPMO GROUP?***
  - **A competence standard defining minimum requirements for organizations operating personnel certification programs**
  - **17024 provides a mechanism by which a certification body can develop & maintain a scheme of personnel qualification with ongoing validation**

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# THE IAPMO GROUP

- ***What does 17024 mean to THE IAPMO GROUP?***
  - **17024 also permits THE IAPMO GROUP to re-assess the qualifications of the certified individuals against ever changing benchmarks**
  - **Enables THE IAPMO GROUP to verify an individuals knowledge & skills as demonstrated by the individuals personal attributes, as provided for in the scheme**

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## ■ ***Characteristics of Personnel Certification:***

- **Develop & administer an examination using objective criteria to verify competency using written, oral, practical and observational means**
- **Certification bodies operating personnel certification schemes do so in a consistent, comparable & reliable manner**

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# THE IAPMO GROUP

- ***Characteristics of Personnel Certification:***
  - **Provides confidentiality that is defined & incorporated as an essential part of the Personnel Certification Standard**
  - **That a management system is necessary in order to fulfill the basic elements of the 17024 standard**
  - **The scheme's characteristics are general in nature thereby providing a minimum standard**

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## ■ *Why does all this matter?*

- Today, THE IAPMO GROUP does business in Countries that are home to 80% of the world's inhabitants
- Plumbing & Mechanical Inspectors are primarily responsible for Code enforcement
- Codes & Standards form the foundation for public health & safety
- Protection of the environment

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# THE IAPMO GROUP

## *Personnel Certification as a Means to Protecting Public Health & Safety*

### Option 1

- **Internal program development & administration**

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## *Personnel Certification as a Means to Protecting Public Health & Safety*

### Option 2

- **Internal program development with external administration**

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# THE IAPMO GROUP

## *Personnel Certification as a Means to Protecting Public Health & Safety*

### Option 3

- **External program development & administration**

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- ***17024 Program Analysis --***
  - **Considered resources required to provide market access by 1 January 2003**
    - **Financial**
    - **Time**
    - **Expertise**
    - **Personnel**

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# THE IAPMO GROUP

- ***17024 Program Analysis --***
  - **Evaluated competition to determine program capabilities & service levels**
    - **Analyze market need**
    - **Determine program acceptance**
    - **Predict continued need & acceptance of personnel certification program**

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# THE IAPMO GROUP

- ***17024 Program Analysis --***
  - **Analyzed current IAPMO GROUP Inspector Certification Program to determine suitability**
    - **Is there value in using 17024 as the basis for future program development / administration**
    - **Is the market saturated**
    - **Will 17024 open markets that would otherwise be unavailable to THE IAPMO GROUP**

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- **1 October 2002 -- THE IAPMO GROUP selects:**

## *Option 2*

- *Internal program development with external administration*
- **Signed agreement with the *National Inspection, Testing, Certification (ITC) Corporation***

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- ***Why select National ITC Corporation?***



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# THE IAPMO GROUP

- ***National ITC Corp* provides significant value --**
  - **Plumbing & Mechanical industry experience & expertise**
  - **Location -- close to IAPMO GROUP WHQ**
  - **Commitment to ANSI program compliance**
  - **Involved with ANSI pilot program**
  - **Personal relationship with *National ITC Corp* senior staff**

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# THE IAPMO GROUP

- ***National ITC Corp* provides significant value --**
  - **Enjoys a reputation of high integrity, creditability & superior customer service**
  - **Ability to meet 1 January 2003 implementation date**
  - **Obtained ISO 9001 QMS registration**
  - **Shares THE IAPMO GROUP's commitment to protecting public health & safety**

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# THE IAPMO GROUP

- ***National ITC Corp* provides significant value --**
  - **And finally, our decision was sealed upon learning that *National ITC Corp* shares THE IAPMO GROUP's vision of doing business in international markets**



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# THE IAPMO GROUP

- ***IAPMO GROUP*** International offices/representatives
  - ~ Beijing, China
  - ~ Buenos Aires, Argentina
  - ~ Suva, Fiji
  - ~ Brussels, Belgium
  - ~ Jakarta, Indonesia
  - ~ Toronto, Canada

## ***IAPMO GROUP World Headquarters***

**Ontario, California  
United States of America**

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## *International Code Adoptions / References*

- Samoa
- China
- Colombia
- St Croix, USVI
- Indonesia
- Israel
- Guam
- Philippines
- Saipan
- St Thomas, USVI
- Saudi Arabia
- St Johns, USVI
- Taiwan
- South Pacific Islands
- Venezuela
- Vietnam

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## A Case In Point

### ■ November 2002

- An unknown virus affects humanity
- SARS or “Severe Acute Respiratory Syndrome”

### ■ March 2003

- Index patient infects relatives while visiting their Flat at the Amoy Garden Apartments, HK, SAR

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## A Case In Point

- **April 2003**
  - Care givers at the Prince of Wales Hospital in HK, SAR, are infected by the index patient and his relatives
- **May 2003**
  - The World Health Organization initiates an analysis of the Amoy Gardens SARS outbreak

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## A Case In Point

### ■ June 2003

- WHO convenes first meeting of public health experts to determine severity of the SARS outbreak and recommendations on preventing further spread

### ■ August 2003

- World Plumbing Council invited to participate in an Informal Consultation involving 11 experts

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## A Case In Point

### ■ September 2003

- **WHO releases document entitled “Inadequate Plumbing Systems likely contributed to SARS transmission”**
- **“It (inadequate plumbing) also contributes to the spread of a number of other infectious diseases in several other countries.”**

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## A Case In Point

### ■ January 2004

- WHO releases a *Consensus Statement from the September 2003 Informal Consultation*
- The Statement identifies areas where further study is required before conclusive results can be identified
- Plumbing industry to play a crucial role

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## A Case In Point

- **At the time of the Consultation (Sep`03), the global SARS epidemic was estimated to have:**
  - **Resulted in 8097 cases of clinical illness**
  - **Resulted in 774 deaths**
  - **In 27 countries**
  - **On six continents**

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## A Case In Point

### ■ WHO Conclusions:

- Health-based regulations should be enforced by inspectors that are properly trained and certified.
- Certification schemes linked to health-based regulations & standards, ... contribute to controlling associated risks.
- Inadequate devices may have also contributed

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## A Case In Point

### ■ WHO Conclusions:

- Responsibility for building safety should be the responsibility of professional groups ... secured through licensing (certification) schemes linked to updating knowledge of good practice.
- All of the above depend upon ... a suitable regulatory framework and a commitment to enforce the health based regulations.

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## **Plumbing & Mechanical Inspector Certification**

### **Personnel Certification as a Means to Protecting Public Health & Safety**