

# WORLD FOCUS



AMERICAN SOCIETY OF SAFETY ENGINEERS

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## Global Safety Training Trends

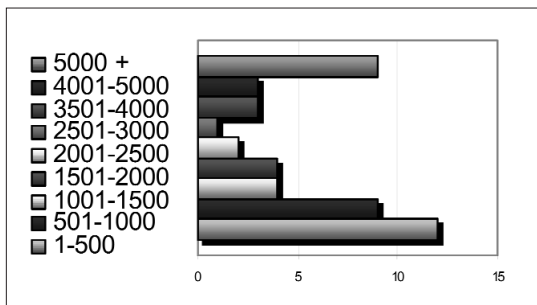
By Sarah Sanders Smith, M.B.A.

**D**uring 2007, a group of Purdue University North Central students, along with their faculty mentor, designed and administered a survey to compare safety training expenditures and practices, on a global context, with trends that are annually determined and reported by the American Society of Training and Development (ASTD). The purpose was twofold: to establish safety training expenditures and metrics versus corporate training in general and to establish and share safety training best practices. The project earned a first-place award at the Purdue Systemwide Student Research competition. The findings to date, data interpretation and future thoughts are presented here.

### Methodology

Survey questions were benchmarked from the annual ASTD training survey

**Figure 1 Company Size**



report matrix for comparison purposes (safety training versus training in general). Additional questions were developed to inquire about best practices and to identify concerns of global safety leaders.

The survey was first distributed to Fortune 500 company safety managers in February 2007. The team then approached regional chapter leaders of ASSE, many of whom promoted the survey to its members. A large response increase was realized when the ASSE website included an invitation to participate in the survey. The questions used the online survey tool QuestionPro and required an average of 14 minutes to complete. To date, 66 people have responded.

### Demographics

Company size was reflected when respondents answered the question, "What is the total number of employees required to attend annual safety training?" The results were an inverse histogram, with the majority of respondents representing small- to medium-sized employers (1 to 500 at 29% and 501 to 1,000 at 23%) or very large organizations (21%). Thus, over half of the respondents (52%) represented employers with fewer than 1,000 employees (Figure 1).

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## Country Profile: Australia

**Editor's Note:** This is the tenth in a series of articles summarizing various countries' government and SH&E legislative processes. It is intended to serve as a planning tool for SH&E professionals preparing to conduct business in the profiled country. Previous profiles included Japan, the U.K., Chile, Ireland, Singapore, Spain, Mexico, India and Italy; they are available at [www.asse.org/practicespecialties/international/](http://www.asse.org/practicespecialties/international/). The material contained is provided by ENSR International. Requests for additional information should be directed to Halley Moriyama at [hmoriyama@ensraecom.com](mailto:hmoriyama@ensraecom.com); +1-978-589-3233; or Jack Fearing at [jack\\_fearing@aon.com](mailto:jack_fearing@aon.com); +1-973-463-6240.

**A**ustralia is an island continent encompassing approximately 7.7 million sq km, which makes it slightly smaller in size than the U.S. Australia is located southeast of

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## Country Profile: Australia

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Asia, between the Indian and Pacific Oceans. New South Wales is situated along the southeastern corner of Australia and covers about 802,000 sq km or a little more than 10% of the country's total land area. New South Wales is bounded by the states of Queensland and Victoria to the north and south respectively, by the Tasman Sea to the east and by the State of South Australia to the west.

Australia has a wide climate range from tropical in the north to temperate in the south. Lying south of the equator, the seasons are reversed from those in North America. The interior of the country largely consists of a great plain that is generally higher in the northeast. A map of Australia is provided on pg. 10. This illustration also identifies the various states along with principal cities.

### Population

Australia had an estimated population of 20.4 million in 2007, making it one of the most sparsely populated of the inhabited continents. Soil and climatic conditions have influenced land uses and have directed the population to the well-watered and more fertile coastal regions of the east, southeast and southwest.

More than 60% of the population lives in the metropolitan areas of the capital cities of the six states. New South Wales, with a population of nearly 8 million, is the most populous state in the country. New South Wales and neighboring Victoria are the two principal manufacturing states in the country.

Sydney, the capital of New South Wales, had a population of about 4.2 million in 2007 or nearly half of the total population of the state. Other important urban centers in New South Wales include Newcastle and Wollongong. In rural areas of New South Wales, important urban centers include Bathurst, Orange, Tamworth and Armidale. Less than 1% of the population consists of Australian aborigines.

### Government

#### Overview

The Commonwealth of Australia is composed of six states (New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania) plus two territories, the Australian Capital Territory

and the Northern Territory, both of which have their own legislatures. Australia is a fully independent member of the Commonwealth of Nations.

The supreme executive power currently resides in the British monarch, as represented by the governor-general and in each of the six states by a governor. The British monarch appoints these officials at the recommendation of the Australian prime minister.

Legislative powers reside with a bicameral parliament consisting of the Senate and the House of Representatives. The leader of the majority party is named prime minister and appoints a cabinet from the members of the Senate and House. The Senate consists of 12 senators from each state and two from each territory. Most hold office for a 6-year term, except for those from the territories who hold office for a 3-year term. There is proportional representation in the Senate. In the House, popular elections are held every 3 years. There are 147 seats in the House, with New South Wales holding 50 seats.

Judicial authority of the commonwealth is vested in the High Court of Australia and other courts created by the federal parliament such as the Federal Court of Australia and the Family Court of Australia.

New South Wales has a similar governmental structure. The state's parliament consists of a 42-member upper house called the Legislative Council and a 99-member lower house called the Legislative Assembly. The state governor, as a representative of the Queen, is the head of state and gives formal assent to state legislation. The judiciary is represented by various courts, including the Magistrates' Court, Country or Commonwealth Courts (vested with responsibility for certain federal matters such as intellectual property and trade) and the Supreme Court. There is also a specialist environmental court in New South Wales, the Land and Environment Court. This court has exclusive jurisdiction over environmental statutes in the state.

### Legislative Process

Legislation is drafted by the government and first introduced into the House of Representatives. A bill must pass three readings before it is allowed to go to the Senate for passage. Once a bill has passed both the House and Senate, it is

then presented to the governor-general for royal assent.

A similar legislative process takes place within the states. The relevant government department or agency, such as the Environment Protection Authority (EPA), normally prepares the initial draft of new legislation in New South Wales. The responsible minister then brings the proposed legislation to the attention of the governor in council who acts upon his/her advice. The attorney general may require that a regulatory impact statement be prepared before the proposal is placed before both houses of parliament.

### Environmental Authorities

The Australian constitution does not specifically identify the environment as a matter which the commonwealth may legislate. As a result, most of the environmental legislation to date has been developed by the individual states, although the commonwealth has enacted environmental legislation on selected issues considered to be within its area of competency.

Commonwealth legislation can address matters such as external affairs, air transport, telecommunications and commonwealth places in a manner that regulates environmental impacts.

The main commonwealth environmental legislation implements international treaties such as the Basel Convention, Marpol and the Montreal Protocol. The Commonwealth Environmental Protection Group (CEPG), which was established in 1991 and was formerly known as the Commonwealth Environmental Protection Agency, administers the various federal environmental acts.

While most environmental legislation is developed at the state level, the need to have uniform standards across the country has been recognized. In 1993, the National Environmental Protection Council (NEPC) was established as a consulting body, comprising ministerial representatives from each of the states and territories as well as from the commonwealth government. NEPC's role is to develop a national approach to environmental protection and to establish minimum standards to be used by state and territorial authorities.

In the absence of commonwealth legislation, the states may regulate activities within their jurisdiction even if the com-

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monwealth has competency in that matter. Where there is a conflict between commonwealth and state legislation, commonwealth legislation shall prevail, according to the constitution.

In New South Wales, the principal environmental regulatory body is EPA, which was established in 1991 by the Protection of the Environmental Administration Act. EPA comes under the administrative jurisdiction of the minister for the environment.

The Sydney Water Corp. Limited is responsible for regulating the discharge of trade effluent to the greater Sydney sewer system. Hunter Water Corp. Limited has similar functions for the Newcastle and Hunter Valley areas. Various other water authorities in regional areas of New South Wales have similar responsibilities across the state.

The other important environmental regulatory body in New South Wales is the Department of Planning, which is responsible for the issuance of development approvals. The department also administers the state's environmental impact process under the Environmental Planning and Assessment Act 1979, which establishes a procedure for evaluating the environmental impacts of certain proposed developments.

Through legislation such as the Local Government Act, local governments (local council) are empowered to abate nuisances, including those that may be considered of an environmental nature (e.g., noise, pollution). Lastly, local governments are responsible for delineating acceptable uses of land and for approving

construction projects. In both cases, environmental considerations may play a part in the decision-making.

## Health & Safety Authorities

Certain parallels can be drawn between environmental and occupational health and safety legislation in that the prime responsibility for the development and enforcement of legislation rests at the state level in both cases.

The commonwealth government does not directly develop occupational health and safety legislation, except in relation to commonwealth employees. Instead, it plays more of a coordinating role through the National Occupational Health and Safety Commission, which consists of 16 members representing the state and commonwealth government and various union and employment organizations. The commission's activities are facilitated by Work-Safe Australia, which is a part of the Department of Industrial Relations. The commission creates advisory standards and facilitates the development of research and workplace information collection.

WorkCover is the coordinating administrative body relative to occupational health and safety matters in New South Wales. It operates under the authority of the minister for industrial relations and employment.

## SH&E Legislation

### *Environmental*

Discrete and wide-reaching environmental protection legislation in Australia is a relatively recent phenomenon, with most laws having been enacted only since the early 1970s. Commonwealth legisla-

tion in the environmental arena largely has involved obligations or requirements established by international treaties to which Australia is a signatory. Examples include the Ozone Protection Act and the Hazardous Wastes (Regulations of Exports and Imports) Act. The commonwealth is also responsible for assessing the environmental impacts of its decisions or those

of projects that may have a significant effect on the environment [Environmental Protection (Impact of Proposals) Act].

In New South Wales, pollution control is accomplished primarily through two vehicles: 1) development consents, which local councils normally issue and 2) various pollution licenses and approvals, which are issued through EPA. In evaluating an application for development consent, the competent authority must consider a range of criteria, including environmental.

In addition to planning approval, "scheduled premises" (i.e., specified types of facilities that potentially generate above de minimis levels of pollution) are subject to separate approvals under the Clean Air Act 1961, Clean Waters Act 1979, Noise Control Act 1975, Pollution Control Act 1970, Dangerous Goods Act 1975 and the Environmentally Hazardous Chemicals Act 1985.

## Occupational Health & Worker Safety

Compared to environmental matters, the commonwealth has been considerably more active in preparing occupational health and safety material for use in the state programs through WorkCover, which reports to the minister for industrial relations and employment. This material includes a large number of model regulations, codes of practice and Australian standards. A national occupational health and safety commission, known as Work-Safe Australia, has been assigned the task of developing the model regulations and codes of practice, whereas Standards Australia, the Australian national standards agency, publishes Australian standards.

In general, these national documents do not have the force of legal requirements directly applicable to individual facilities. Furthermore, in cases involving litigation, a court may draw on such references in making a determination as to whether or not to construe negligence and whether the practices and situations concerned constitute "good practice," a "reasonable standard of care" and a "safe place to work," although this may not always be the case for some courts have refused to consider them relevant. However, it is possible that an individual document may be incorporated by reference into a particular regulation. Under the latter circumstance, the referenced docu-



## Public Holidays

National holidays are noted as follows. This is a working guide only; dates should be verified prior to undertaking any visit. When holidays fall on a Saturday or Sunday, commercial establishments may be closed the preceding Friday or the following Monday.

Holiday	Fixed Date
New Year	Jan. 1
Australia Day	Jan. 26
Good Friday	Varies
Easter Monday	Varies
Anzac Day	April 25
Queen's Birthday	June 13
Christmas	Dec. 25
Boxing Day	Dec. 26
New Year's Eve	Dec. 31

ment becomes part of the regulation and thus becomes a legal requirement.

Codes of practice have been prepared in areas such as:

- labeling of workplace substances;
- interpretation of exposure standards for atmospheric contaminants in the occupational environment;
- determining and classifying a hazardous substance;
- completion of an MSDS.

Model regulations have been prepared to:

- control workplace hazardous substances;
- control scheduled carcinogenic substances in the workplace.

Australian standards applicable to occupational health and safety include those addressing topics such as:

- noise;
- fire hydrants;
- workplace injury and disease recording;
- dangerous goods (storage, handling, transport, packaging, classification, labeling and emergency procedures).

Codes of practice, model regulations and Australian standards are gradually being incorporated into state and territory occupational health and safety legislation, further contributing toward uniformity. Often model regulations have been incorporated in specific instances, according to type of industry, substance or process. Some model regulations have been incorporated in one or two states but not in others. For example, the model regulation for asbestos handling has been incorporated in Victoria but not in other states.

The principal occupational health and safety legislation enacted in New South Wales is the Occupational Health and Safety Act 1983. It establishes general duties and rights between employers and employees and is supported by various regulations and codes of practice promulgated under the Act. Under the Factories, Shops and Industries Act 1962, the occupier of any factory must register the operations with WorkCover. Construction of any building intended for manufacturing use requires prior approval by WorkCover. The same is true with any structural alteration or addition to a registered factory.

## Enforcement

### Administrative Actions

If a party violates environmental laws or regulations, the environmental authorities or other relevant administrative bodies responsible for enforcement under the law may impose administrative sanctions against the responsible party. These sanctions include infringement notices, notices to clean up, directions to carry out specified work, directions to abate noise and/or the revocation of the permit or license. Lastly, by revoking a license, the authorities can effectively shut down a facility for failure to achieve compliance.

The Environmental Offences and Penalties Act 1989 substantially raised the bar relative to penalties for non-compliance. The act's provisions include:

- For Tier One offenses, establishes a maximum penalty of Aus\$1 million (equivalent to about \$770,000 U.S.) in the case of a corporation or up to Aus\$250,000 or 7 years' imprisonment or both in any other case. A corporation can commit an offense in several ways, including being vicariously liable for the actions of employees, which constitute an offense, being the holder of a license or approval that has been contravened or being liable as a legal "person" if something occurs at the facility, such as water pollution that contravenes the requirements of the Clean Water Act. Tier One offenses involve 1) the willful or negligent disposal of waste in any matter, which harms or is likely to harm the environment; 2) willfully or negligently causing any substance to leak, spill or otherwise escape (whether or not from a container) in a manner, which harms or is likely to harm the environment; and 3) willfully or negligently causing any

ozone-depleting substances to be emitted into the atmosphere in a manner, which harms or is likely to harm the environment. For lesser offenses (Tier Two or Three), the maximum penalties are substantially less, though there are daily fines of up to Aus\$60,000 for continuing offenses caused by corporations and up to Aus\$30,000 for continuing offenses caused by individuals relative to Tier Two offenses.

- For Tier One offenses, both the person causing the problem as well as the owner of the waste or substance causing the harm, are each guilty of an offense.

- Where a corporation commits an offense, each person who is a director of the corporation or who is involved in the management of the corporation is considered to have created the offense unless s/he can qualify under one of three possible defenses: 1) the corporation contravened the provision without the actual, imputed or constructive knowledge of the person; or 2) the person was not in a position to influence the conduct of the corporation in relation to its contravention of the provision; or 3) the person, if in such a position, used all due diligence to prevent the contravention by the corporation.

- In addition to penalties, the court can order the offender to not only abate the pollution, but also to recover all costs incurred, including loss of or damage to property. To ensure collection of these costs, the court can also impose a restraining order to prevent a defendant from disposing of property if there is a risk that such actions are intended as a way to avoid paying any obligations.

### Civil Liability

Civil proceedings can be brought for alleged breaches of SH&E regulations. These proceedings may result in declarations, injunctions, damage awards or a combination of these.

Pursuant to Section 25 of the Environmental Offences and Penalties Act 1989, EPA or any person can bring civil proceedings to restrain a breach or threatened breach of the act if the breach is likely to cause harm to the environment. An individual must obtain the approval of the Land and Environment Court to do so. An individual may also bring criminal proceedings against a person for a breach of the Act with the consent of EPA or the Court's permission. In the case of occupational health

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and safety, criminal proceedings may be initiated by any person (in addition to a WorkCover inspector) with consent of the Minister or the secretary of a relevant trade union. Class-action suits are not available in Australia. An incorporated association usually brings public interest litigation.

### **Criminal Sanctions**

Criminal proceedings can also be brought for alleged breaches of SH&E regulations. These proceedings may result in fines, imprisonment, restoration orders or a combination of these.

### **Strict Liability**

Most SH&E offenses in Australia impose strict liability so that proof of knowledge or intention is not required.

## Contaminated Land

### **Applicable Regulations**

Australia does not have any specific land contamination laws requiring that cleanup take place or imposing retroactive, joint, several and strict liability on potentially responsible parties. However, various New South Wales provisions govern contaminated land. EPA has the power to require the occupier of a contaminated premises to take specified action, including the action to remediate contamination. In some circumstances, cleanup costs may be recovered by the occupier of a premises if the pollution was caused by others. EPA may also clean up land and recover costs from the polluter or the occupier.

Legislation providing for the accreditation of site auditors has also been passed in New South Wales but has not yet commenced. The site auditor accreditation provisions in the Environmentally Hazardous Chemicals Act apply only to contaminated land. Site audits (independent reviews of remedial action) will only be able to be conducted by an accredited auditor and the results must be provided to EPA.

### **Liability for Preexisting Contamination**

A New South Wales Government Green Paper, published in April 1996, proposes new legislation to enable EPA to designate sites as either "risk" or "nonrisk." EPA will be able to require the "controller" to remediate a risk site. The controller may be the owner, occupier or the mortgagee in pos-

session. This individual will then have a right of recovery against the original polluter. In effect, this means that the controller of land may be liable for preexisting contamination.

### **Cleanup Standards**

Cleanup standards the EPA uses vary according to the nature of the site and the proposed use of the site once it is remediated. Primary standards applied in New South Wales are the ANZECC/NHMRC Guidelines for the Assessment and Management of Contaminated Sites. The guidelines are jointly published by the Australian and New Zealand Environment and Conservation Council (ANZECC) and the National Health and Medical Research Council (NHMRC).

## Other Useful Information

### **Key Federal Agencies**

Department of the Environment,  
Sport and Territories  
40 Blackall St.  
Barton ACT 2600  
Australia

Tel: (+61-6) 274-1111  
Fax: (+61-6) 274-1123

Commonwealth Environment  
Protection Group  
40 Blackall St.  
Barton ACT 2600  
Australia

Tel: (+61-6) 274-1411  
Fax: (+61-6) 274-1164

Department of Industrial Relations  
Jolimont Tourist Centre  
65-67 Northbourne Ave.  
Canberra ACT 2600

Tel: (+61-6) 243-7333  
Fax: (+61-6) 249-8774

National Occupational Health and  
Safety Commission (Worksafe Australia)  
BPO Box 58

92 Parramatta Rd  
Camperdown, NSW 2050  
Australia  
Tel: (+61-2) 9565-9555  
Fax: (+61-2) 9565-9202

### **Key New South Wales Agencies**

Environment Protection Authority  
P.O. Box 1135

Chatswood, NSW 2057  
Tel: (+61-2) 9795-5000  
Fax: (+61-2) 9325-5678

Sydney Water Corp. Limited  
P.O. Box A53

Sydney South, NSW 2000

Tel: (+61-2) 9350-6969

Fax: (+61-2) 9392-3100

Department of Urban Affairs and  
Planning, New South Wales  
GPO Box 3927

Sydney, NSW 2001  
Tel: (+61-2) 9391-2000  
Fax: (+61-2) 9391-2111

WorkCover Authority  
400 Kent St.  
Sydney, New South Wales 2000

Tel: (+61-2) 9370-5000  
Fax: (+61-2) 9370-6187

Department of Industrial Relations  
P.O. Box 847  
1 Oxford St.

Darlinghurst, New South Wales 2010  
Tel: (+61-2) 9266-8888  
Fax: (+61-2) 9266-8032

## Sources of Regulatory Information

Copies of SH&E regulations can be obtained from the following sources.

### **Commonwealth**

Commonwealth SH&E legislation, including Worksafe Australia training documents, guidance notes and codes of practice, can be obtained from:

Australian Government Publishing  
Service

GPO Box 84  
51-61 Wentworth Ave.  
Kingston ACT 2604  
Tel: (+61-6) 295-4411  
Fax: (+61-6) 295-4884

In New South Wales, commonwealth legislation can be obtained from:

Australian Government Bookshop  
32 York St.

Sydney, NSW 2000  
Tel: (+61-2) 9299-6737  
Fax: (+61-2) 9262-1219

SH&E legislative loose-leaf type services can be obtained from:

CCH Australia Limited  
Corner Talavera and Khartoum Roads  
Box 230

North Ryde, NSW 2113  
(+61-2) 9888-2555  
(+61-2) 9888-7324

## Legislation Websites

Commonwealth Department of  
Environment, [www.erin.gov.au](http://www.erin.gov.au).

All Australian legislation,  
[www.austlii.edu.au](http://www.austlii.edu.au)

Various SH&E standards are issued through Standards Australia. Publications can be purchased through the national sales center:

Standards Australia  
1 The Crescent  
Homebush NSW 2140  
Australia  
Tel: (+61-2) 9746-4600  
Fax: (+61-2) 9746-3333

#### **New South Wales**

New South Wales SH&E legislation can be obtained from:

NSW Government Information Service

Unit 10 Block V  
Regents Park Estate  
391 Park Rd.  
Regents Park, NSW 2143  
Tel: (+61-2) 9752-1111  
Fax: (+61-2) 9743-7124

SH&E legislative loose-leaf type services can be obtained from:

CCH Australia Limited  
Corner Talavera and Khartoum Roads

Box 230  
North Ryde, NSW 2113  
Tel: (+61-2) 9888-2555  
Fax: (+61-2) 9888-7324

WorkCover New South Wales has published various training material, guidelines and codes of practice. Copies of these documents can be obtained from local offices found throughout the state. The main office in Sydney is:

WorkCover New South Wales  
400 Kent Street  
Sydney, NSW 2000  
Tel: (+61-2) 9370-5000  
Fax: (+61-2) 9370-6187

#### **Other Contacts**

Embassy of Australia  
1601 Massachusetts Ave. NW  
Washington, DC 20036  
Tel: (202) 797-3000  
Fax: (202) 797-3168

U.S. Embassy  
Moonah Place  
Canberra ACT 2600  
Australia

Tel: (+61-6) 270-5000  
Fax: (+61-6) 270-5970  
U.S. Department of State  
Country Desk Officer: Australia Desk  
Tel: (202) 647-9691

U.S. Department of Commerce  
International Trade Administration,  
Australia Desk  
Tel: (202) 482-4958

American Chamber of Commerce in Australia

Suite 4, Gloucester Walk  
88 Cumberland St.  
Sydney, NSW 2000  
Australia

Tel: (+61-2) 241-1907  
Fax: (+61-2) 251-5220

Australian-American Chamber of Commerce

1450 Chapin Ave., Ste. 8  
Burlingame, CA 94010  
Tel: (415) 348-4825  
Fax: (415) 348-4821

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## **State of SH&E in the Middle East: An Overview**

**By Syed Ali**

**M**y adventurous journey to the Middle East began some 15 years ago while I was living and working in the complex oil and gas sector in Alberta, Canada. I embarked on the journey with my family to gain international experience, not to mention a lucrative salary and benefits package, which included a tax-free salary, company-provided furnished accommodations, extended vacation and worldwide travel. These kinds of incentives and perks were hard to pass up then and even now. Of course, I had to pay a price—it was hard to overcome the shock of traveling from the Canadian Rockies to the Middle Eastern desert or from -40 °C to 40 °C. Nevertheless, the transition was smooth despite severe cultural and weather shock.

I was hired in an advisory capacity by a well-reputed petrochemical manufacturing outfit to oversee SH&E activities for multiple sites. This included maintaining liaison

with regulatory agencies and fostering an SH&E culture across the organization and its affiliates. Fostering the SH&E culture 15 years ago as an expat was an uphill battle. That said, I received the necessary tools and support from management to promote SH&E in a timely, professional and cost-effective manner.

### **The Challenge**

To raise the profile and to gauge the state of SH&E, I visited each site to familiarize myself with process operations and related activities. This included initiating dialogue with all levels of management. My conclusion at the time was that health and safety at these sites were both the fundamental right and obligation of employees and management alike. However, the state of SH&E was fully assessed through gap analysis followed by compliance auditing. In my capacity as lead auditor, I audited the sites in the context of local applicable regulations,

industry practice and international SH&E regulations where applicable. As a result, it became increasingly evident that in most cases, the European and North American standards formed the basis for SH&E regulations in the Middle East supplemented by local labor laws/codes for the protection of workers from occupational hazards.

### **The State of SH&E**

The audit findings clearly suggested that the vast majority of the sites were not in full compliance due to lack of expertise, shortage of manpower and lack of regulations enforcement. For example, some sites were found to be deficient in implementing some basic administrative/management controls such as signage posting for noise hazard or the use of appropriate PPE.

Specifically, the SH&E program was still in an early state of development. In

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