

Day 1, May 24, 2006

OPENING CEREMONIES

1. Following welcome remarks by Atty. Ma. Gloria A. Tango, DOLE Regional Director goodwill messages and expressions of support to the organizers of the Summit were delivered by representatives of the Trade Union Congress of the Philippines (TUCP), the Employers' Confederation of the Philippines (ECOP); the World Health Organization (WHO); and the Davao City government.

Atty Democrito Mendoza, President of the Trade Union Congress of the Philippines, saw the Summit as an opportunity to renew TUCP's commitment to the Zero Accident Program (ZAP). He believed that all sectors- government, labor and (or) employer- were tasked to prevent work-related injuries, ill health and death. For the Philippines, a TUCP study had shown negative conditions in export processing zones where 12 hours work days were not uncommon and even cases of 3 straight work days had been recorded. Forty-three (43%) of employers had no health and safety committees and about a fourth did not provide safety equipment. In protest of said OSH conditions, TUCP had led candle-lighting ceremonies. He assumed that one of the reasons for a low implementation of OSH standards were the lack of awareness and limited resources. He therefore urged the participants to come forward with concredited proposals that address OSH problems and deficits through education, capacity-building and advocacy programs. In the area of governance, he urged a strong national framework on OSH.

Atty. Rene E. Cristobal, Vice President, Employers Confederation of the Philippines, who had started his entrepreneurial career in Mindanao emphasized that entrepreneurs had to be competitive in the global arena while providing a better quality of life for their workers. He noted that OSH was an indispensable ingredient in a package of strategies to attain decent work for all and to generate and preserve employment. There was clear evidence that OSH was an effective tool towards addressing higher productivity and lower rates of accidents and injuries. Even in the international arena, the demand for OSH interventions had been increasing substantially. In fact, ECOP had just attended a workshop in Singapore on OSH management systems at the company level as a strategy for improving global competitiveness of enterprises. It was imperative that all establishments became aware of the importance of OSH and were implementing integrated OSH plans in their respective companies.



Atty. Democrito Mendoza and Mr. Rene Cristobal in a jovial mood.

Dr. Jean-Mark Olive, Country Representative of the World Health Organization was confident that the 1st Mindanao Summit on OSH would lead the way towards concerted action by all sectors in providing a safe and healthy environment for everyone. Presenting global trends of job-related illnesses and accidents, he also informed the assembly that the WHO was an active partner in promoting OSH in the country in the context of its global strategy focused on 1) policy, legislation and support to decision-makers; 2) infrastructure support and development through capacity-building, information dissemination and networking; and 3) promotion of worker's health and protection.



Ms. Angela Librado-Trinidad, City Councilor, speaking on behalf of Mayor Rodrigo Duterte took pride in informing the audience that Davao City had always attended highest priority to the welfare of workers. Relevant programs were in place in support of women workers, child laborers and Overseas Foreign Workers (OFWs). Generally, Mindanao was well on track in the area of OSH; however increased attention should be given to workers' safety and health in a large number of workplaces that continued to violate OSH standards. She assured the assembly that the local government of Davao was fully committed to the long-term goal of providing safe workplaces and promoting healthy working conditions for its workers, primarily for those exposed to hazardous conditions.



Keynote Speech



Undersecretary Imson speaking on behalf of the Honorable Secretary Patricia Sto. Tomas, congratulated the organizers and sponsors for holding this landmark activity on OSH in Mindanao; a product of concerted action of all partners in the private and public sector, this event signaled great interest and commitment from various participants including the International Labor Organization (ILO) and the World Health Organization (WHO).

A “culture of safety and health” at work, the theme of the Summit, encompassed a range of values, rules and practices to ensure that work is done without harm to life and limb of workers. It placed the well-being of workers at the center of all economic activities. OSH values were enshrined in the Constitution, the Philippine Labor Code and the Occupational Safety and Health Standards. Its most important feature was the commitment and drive shared by labor, management and government to apply established procedures and standards in line with overall values on the dignity of work.

The Philippines was set to participate in the International Labor Conference in June 2006 in Geneva where the draft ILO Convention on a Promotional Framework on OSH would be approved by the international community. This new Convention encouraged Member countries, including the Philippines, to develop in a coherent and integrated manner their respective national OSH policies, systems and procedures.

In the Philippines, however, certain local challenges remained to be addressed. First there was a need to close the protection gap for workers in the 8,000 larger companies and the 750,000 small and micro-enterprises. Government could lead in this effort but the private sector and the civil society must join hands to achieve substantial concrete results. The second challenge related to a better coordination of efforts. Much could be done in this area since the current number of OSH professionals was very small in relation to the vast needs. Increasing the numbers of OSH practitioners safety and health needed urgent attention.

Third, there had been a substantial increase in the number of training offerings particularly from the OSHC but these were still falling short as the demand was fast increasing. A strong network was necessary for OSH programs to reach larger sections of the workforce. The OSHC was testing new training modalities like the distance mode and training of trainers to reach more clients. The private sector was encouraged to do the same. On the other hand, the Labor Standards Enforcement Framework (LSEF) had incorporated OSH concerns in inspection and compliance checklists and provided for the extension of technical assistance to Barangay Micro-Business Enterprises (BMBEs) A fourth challenge referred to the lack of necessary information and motivation by potential beneficiaries. OSH was rarely covered by CBAs, CNAs and LMCs.

Usec Imson emphasized that ZAP should remain a centerpiece of OSH activities in the Mindanao regions. The Regional Offices were asked to vigorously pursue OSH; transfer ZAP technology by building capacity for training and technical advisory services among practitioners; and further effectively implementing the NLEF. Addressing concerns relating to the harmful chemical substances in farms, he proposed a National Control Program on the Persistent Organic Pollutants (POPs), with partners like the DOLE, DENR, the DILG, LGUs and many others, so that low-cost OSH methodologies could be used.

He also expressed hope that the Summit would result in a strong commitment of all stakeholders to follow the highest OSH standards and to share their innovative OSH practices and interventions. A directory of OSH focal points will be distributed to all participants to facilitate stronger networking.

While the creation of an OSH culture involved painstaking efforts, he believed that this could be achieved when the rationale and the potential benefits of OSH were generally understood, accepted and internalized by labor, management and government. Building an OSH culture was a tall order but it could be done.

Following his keynote address Undersecretary Manuel G. Imson led officials, guests and participants to open the OSH product and photo exhibits.



PROGRAM OF ACTIVITIES

DAY 1	May 24, 2006
8:00 – 9:00 AM	Registration
9:00 – 10:00	Opening Ceremonies
10:00 – 10:15	Opening of Exhibits
10:15 – 10:30	BREAK
10:30 – 12:00 PM	PLENARY 1. WHY OCCUPATIONAL SAFETY AND HEALTH? Chair: Dir. Ponciano M. Ligutom, DOLE – RO X National Profile and Situationer on Occupational Safety and Health Dr. Dulce P. Estrella-Gust, OSHC Mindanao Situationer on Workplace Safety and Health Dir. Ma. Gloria A. Tango, DOLE – RO XI OSH: Views from an Arbitration Agency Chairman Benedicto Ernesto R. Bitonio Jr., NLRC OPEN FORUM
12:00 – 1:00 PM	LUNCHEON SYMPOSIUM National Implementation Plan for Control of Persistent Organic Pollutants Engr. Nestor V. Patnugot, Department of Environment and Natural Resources (DENR)
1:00 – 3:00 PM	SESSION 1. OCCUPATIONAL RISK MANAGEMENT I Chair: Dir. Chita DG. Cilindro, DOLE – RO IX Concept of Work-Relatedness in Injuries and Illnesses Dr. Ma. Teresita S. Cucueco, OSHC Judicious Use of Insecticides in Public Health and Agriculture Dr. Raman Velayudhan, Office of the WHO Representative in the Philippines Legislative Control of Pesticides in Relation to Occupational Safety Dir. Dario Sabularse, Ms. Estrella Laquinta, Fertilizer and Pesticide Authority Protecting Children’s Health by Limiting Exposures of Pregnant Workers and Reducing Take Home Poisons Dr. Irma R. Makalinao, UP Manila

Safety Environment Concerns in Mining

Engr. Eustaquio Estobo and Mr. Cirica Canto
Cagdianao Mining Corporation

Pattern of Pesticide Use among Cut-Flower Farmers

Dr. Lynn Crisanta Panganiban, National Poisons Control
Center, UP-PGH

Environmental Health Risk Assessment in Bislig Bay

Dr. Brenda Estrella, CHO-Bislig City

OPEN FORUM

3:00 – 3:15

SNACK SYMPOSIUM

Augmentin: Behind the Scene

GlaxoSmithKline Philippines, Inc.

3:15 – 5:15 PM

SESSION 2. OCCUPATIONAL RISK MANAGEMENT II

Chair: Dir. Lourdes M. Trasmonte, DOLE – RO XII

Safe Handling and Disposal of Pesticides

Ms. Edna Callejas-Mijares, Managing Director, Jefcor Laboratories,
Inc.

Responsible Care Program

Mr. Simeon Cuyson, Crop Life Philippines

Risk Exposure In Firefighting

SFO3 Dioscoro Baja, Jr. BFP-Davao City

OSH Programs for Firefighters

Major Jose Segundo Embang, Jr., DILG-BFP

Mercury in Small Scale Mines

Engr. Ana Trinidad Francisco-Rivera, DOH

Globally Harmonized System (GHS)

Engr. Nelia G. Granadillos, OSHC

Construction Safety: OSH Problems and Measures

Mr. Orlando B. Anota, Hanjin Heavy Industries & Construction
Company

OPEN FORUM

5:15 – 6:30 PM

SESSION 3. OSH PROMOTION

Chair: Dir. Chona M. Mantilla, DOLE – RO XIII

OSH in the Public Sector

Ms. Esperanza Ocampo, PGEA

Prevention of Lifestyle Related Diseases:

Anti-Smoking Campaign Program of Davao City

Dr. Susan Go, PCOM – Davao Chapter

**A Proposed Course Syllabus on Occupational Safety and Health
in the Engineering Curricula**

Engr. Erwin B. Daculan, University of San Carlos, Cebu

Lock Out and Tag Out Program

Mr. Al W. Dionisio, Top Rigid Industrial Safety Supply

7:00 PM

**OPEN FORUM
DINNER RECEPTION**

DAY 2

May 25, 2006

8:00 – 10:15 AM

SESSION 4. POLICIES AND PROGRAMS: ZAP IN MINDANAO

Chair: ARD Nasser B. Munder, DOLE – RO X

OSH in Dole-Stanfilco:

Best Practices in Manufacturing Safety and Health

Mr. Filemon Sanchez, DOLE Stanfilco

Environmental Safety

Mr. Abdon A. Patagoc, Jr., Chiquita Unifrutti Philippines Inc.

Developing a Team Culture in a Food Manufacturing Facility

Ms. Ma. Isabel Malferrari, Manager, Corporate Management
Development, Del Monte Phils.

Managing Risks in Handling and Transporting Chlorine:

The 3rd Party Logistics Experience

Mr. Samuel Suarez, Magsaysay Group of Companies

Quality and Environment Health and Safety Management System

Engr. Ronald C. Macaspac, WMPC

La Frutera, Inc.

Ms. Rosemarie Sira

HR Manager

BOSH Through the Distance Mode

Ms. Rosanna M. Tubelonia, OSHC

**Workplace Safety and Health Practices for Better Results
and Productivity in the Public Sector**

Engr. Wesley D. Tan, DOLE – RO IX

OPEN FORUM

10:15 – 10:30 AM

B R E A K

10:30 – 12:15 PM

SESSION 5. POLICIES AND PROGRAMS: ZAP IN MINDANAO

Chair: Engr. Emmanuel A. Capili, MINSAL

Building a Safe and Healthy Culture in the Workplace:

The Del Monte Cannery Experience

Mr. Arthur B. Quiblat, Del Monte Phil.

Anticipating Danger Means Avoiding Accident

Mr. Ricardo A. Cinco, Philippine Sinter Corp.

**Moving Towards a Healthy and Safe Work Environment:
A Challenge to the Power Industry of Mindanao**

Engr. Diogenes B. Esmade, Jr., NPC

OSH Program for Security Personnel

Maj. Sebastian C. Bonghanoy, Jr. PA (Ret), Alsons Security Co., Inc.

**Guidelines Governing the Employment of Workers in the
Construction Industry**

Mr. Manolito Madrasto, Philippine Construction Association

**OSH – Work Improvement for Neighborhood Development (OSH-
WIND)**

Dir. Susana Evangelista Leones, DAR

OPEN FORUM

12:30 – 1:30 PM

LUNCH BREAK

1:30 - 3:00 PM

**PLENARY 2. TOWARDS ACHIEVING ZERO ACCIDENT AND
PROMOTING WORKER'S HEALTH**

Chair: Dir. Gloria A. Tango, DOLE – RO XI

The Zero Accident Program Master Plan

Dr. Dulce P. Estrella-Gust, OSHC

The Mindanao Framework on OSH

Dir. Ponciano M. Ligutom, DOLE – RO X

2:00 – 3:30

WORKSHOP

3:30 – 4:00

PRESENTATION OF WORKSHOP OUTPUTS

4:00 – 4:15

BREAK

4:15 – 4:30

The ILO Promotional Framework on OSH

Mr. Ken Hirose, Social Protection Specialist, ILO Manila

4:30 – 5:30 PM

CLOSING CEREMONIES

Presentation and Signing of Joint Communiqué

Messages

USEC. VIRGILIO L. LEYRETANA, SR.

OIC – Chair, Mindanao Economic Development Council (MEDCO)

DR. NEMESIO GAKO

Assistant Secretary, Department of Health, DOH

PLENARY I.

WHY OCCUPATIONAL SAFETY AND HEALTH

Session Chair: Dir. Ponciano M. Ligutom
DOLE Regional Office No. X



National Profile on OSH
Dr. Dulce P. Estrella-Gust
Executive Director
OSHC-DOLE

According to Dr. Estrella-Gust, the National Profile on OSH was the outcome of extensive consultations among concerned private and public sector social partners: government agencies, employers' and workers' organizations, academe, professional and non-governmental organizations.

Over time, with DOLE taking the lead, the Philippines had developed a wide range of responses to OSH challenges in the private and public sectors. Program monitoring and evaluation mechanisms had been put in place through biennial National Conferences and National Awards. The Gawad Kaligtasan at Kalusugan award had evolved as high-profile national awards to promote and achieve ZERO ACCIDENT in all workplaces.

The increase of emerging and re-emerging illnesses was being recognized as an important OSH challenge including the prevention and control of biological hazards, in particular TB and avian flu. Other OSH issues were related to the international movement of labor, the rise in female employment and the flexibilization of work. The national and international response to the group of chemicals called Persistent Organic Pollutants (POPS) and to the Globally Harmonized System (GHS) of labeling chemicals was described in some detail. Also addressed were ergonomic hazards, counting among the most common OSH problems in manufacturing and agriculture.

The OSH concerns of vulnerable groups of workers deserved special attention, in particular those of young workers, women and older workers, the disabled and, generally, workers in the informal sector.

There was much need and scope for expanding the network of program implementers on OSH by involving as many organizations possible at national, regional, local and industry levels.

The Summit was a unique opportunity to strengthen OSH services in this dynamic region. Looking to the future, Dir. Estrella-Gust made a strong case for a Medium-Term OSH Plan and a coherent system for its implementation. Emphasis should be placed on operational integration of prevention and compensation programs, the strengthening of regional activities and programs on OSH, and the elimination of duplication of functions of different agencies and bureaus. This message should be the guiding principle of all future work on prevention, research, policy advice, training and information and technical services.

Mindanao Situationer on Workplace Safety and Health

Director Ma. Gloria A. Tango
DOLE Regional Office No. XI



In her OSH situationer on Mindanao Dir. Tango referred to three major data sources: (1) the 2002/2003 Bureau of Labor and Employment Statistics (BLES) Integrated Survey; (2) the 2005 Bureau of Working Conditions (BWC) consolidated medical and injury report; and (3) 2005 inspection reports.

According to the BLES survey, a total of 58,720 cases of work-related incapacity were recorded, with 170 fatalities; 131 permanent incapacities and 11,609 superficial wounds. In terms of type of injury, dislocations, sprains and strains accounted for 3,336 cases, followed by burns, corrosions, scalds and frostbites (2,300).

The BWC data on the other hand, showed the number of reporting establishments which complied with Rule 1050 of the OSH Standards in the Mindanao area. It also indicated the number of cases per type of injury (whether fatal, permanent partial or temporary total disabilities), the number of workers and man-hours worked by the reporting establishments.

The, admittedly, limited database gave rise to the following observations: 1) data were not disaggregated by region; 2) the BWC data showed a low rate of reporting on medical and injury cases. There was no system for regular feedback on the results of the analysis of the raw reports submitted to BWC; and 3) the most commonly-violated rules of the OSHS by establishments were: Rule 1020 (Registration); Rule 1030 (Training of Personnel on OSH) ; Rule 1040 (Health and Safety Committee) and Rule 1080 (Personnel Protective Equipment and Devices).

She recommended that the BLES Survey should include agricultural establishments and that data should be disaggregated by regions; the DOLE should strictly enforce the submission of medical/injury reports by establishments, to be consolidated by the DOLE Regional Offices; generally all social partners, government, employers' and workers - should intensify advocacy on safety and health providing awards or recognitions of establishments complying with the OSH Standards.

Occupational Safety and Health: Views from An Arbitration Agency

Atty. Benedicto Ernesto R. Bitonio Jr.
Chairman, NLRC



Emphasizing that safety was non-negotiable, Atty. Bitonio urged that each and every workplace should have a Zero Accident Program to promote safety in every establishments in the country. From the perspective of an arbitration agency like NLRC, three points were important: 1) the international Debate; 2) the NLRC as a Workplace; and 3) the NLRC's OSH concerns for (on) other workplaces.

The International debate at ILO, Geneva focused on the updating of the list of occupational diseases. There was general agreement that healthy and safe workers stand for higher productivity, greater harmony in the relationship between workers and employers. Social-economic progress would ensure better OSH management and practices.

Experts did however disagree on the ways and means of updating the list of occupational diseases. At present the list was an open-ended list with some flexibility to recognize other diseases. The current policy was favored by representatives of workers and governments, while employers' representatives seemed to be in favor of establishing general criteria.

The NLRC, as a workplace, was composed of 171 Arbiters and 14 Commissioners, mandated to resolve labor disputes. Their clients were often angry, distressed, and impatient. 2.5 cases were filed everyday in their offices. Stressors or risk factors included: 1) behavior of parties and the public; 2) the performance standards requiring each labor arbiter to dispose of 27 cases per month; 3) the working conditions at the office; 4) mobbing of arbitrators; 5) chronic back and neck pains, hypertension, arthritis, diabetes and other lifestyle or workplace-related disease. For arbitrators, OSH was a personal responsibility.

As far as other workplaces were concerned, NLRC had no mandate to enforce OSH standards. However, it was dealing with claims for damages brought about by the non-implementation of OSH standards in the workplace and the application of rules on the termination of employment due to diseases under Art. 286 of the Labor Code. The Employees' Compensation Program also covered OFWs.

There were difficulties in the arbitration of these claims: Present rules being vague, it was difficult to establish that diseases were not curable within six months and therefore would lead to the termination of the employee. Regarding OFWs problems arose regarding seafarers, because the scope of post-employment medical examinations was not well defined and the risk factors in ocean going vessels had not been identified.

In conclusion, Atty. Bitonio suggested that the international debate must draw on the broadest experience at national level. Education and awareness raising on OSH should be given priority as well as further research on OSH specific issues.

Open Forum

One participant argued, that the present Occupational Safety and Health Standards were outdated and needed urgent revision. According to Dr. Estrella-Gust responsibilities for updating of the OSHS is with the Bureau of Working Conditions. However, the OSHC was contributing to this initiative; OSHC felt that work on Threshold Limit Values (TLVs) of airborne contaminants was a top priority and was therefore, pushing for the immediate updating.

Following a request for further information, Atty. Bitonio explained that NLRC had denied the claim of a cook who had sued for work-related injury after being hit by a potato at his workplace.

In response of a query by one participant about the risk of infertility due to carrying of cellphone in his pocket and the risk of contracting cancer when putting the cell phone in his breast pocket. Dr. Estrella-Gust confirmed that research had not confirmed any of these risks.



SYMPOSIUM

National Implementation Plan to Control Persistent Organic Pollutants (NIP)

Engr. Nestor V. Patnugot
DENR Regional Office No. XI

The speaker pointed out that environmental protection was subject to the Philippine Constitution; laws and local ordinances; the regulations promulgated by regulatory agencies and court decisions. The Philippine environmental policy has been stated in Presidential Decree 1151. Responsible agencies were the Departments of Environment and Natural Resources; Agriculture; Public Works and Highways; Transportation and Communication; Education and Culture; Health, and other government agencies. R.A. 9003 has led to the creation of the Environmental Management Bureau (EMB) under the DENR. Several Supreme Court decisions were also cited as legal bases especially regarding local government jurisdiction over disposition of natural resources.

The Philippine NIP had been developed as the country's blueprint for the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs): Protection of human health and the environment from POPs by eliminating production and use and by minimizing releases of the Dirty Dozen or the 12 POPs chemicals (i.e., Aldrin; Chlordane; DDT; Dieldrin; Endrin; Heptachlor; Hexachlorobenzene; Mirex; Toxaphene; PCBs; Dioxins and Furans).

The objectives of the NIP are; 1) to outline the National Objectives for the reduction and elimination of POPs production, importation, use and releases; 2) to define the country's priorities and position to reduce and eliminate POPs releases; 3) to design a program to remove barriers towards effective implementation of POPs phase out and release reduction measures under the Convention; 4) to plan programs for information exchange, public education, communication and awareness raising; 5) to enhance capacity of country through capability-building as required; 6) design program to enable termination of country specific exemptions; 7) to outline the needs for transfer of technology and know-how and /or enhanced use and development of indigenous knowledge and alternatives and the estimated costs of needed investments.

The draft NIP had been presented in November 2005 for approval to the Secretary of the DENR.

Session 1. Occupational Risk Management
Chair: Dir. Chita DG. Cilindro
DOLE-RO IX

Work-Relatedness in Injuries and Illnesses

Dr. Ma. Teresita S. Cucueco,
Chief, Health Control Division
OSHC-DOLE

For Dr. Cucueco it was most important to establish whether or not a disease or injury was work-related, not only to properly manage, treat or compensate the affected worker but also to take steps to prevent recurrence in other workers. In the Philippines, work-related and occupational diseases continued to be under-recognized and under-reported. Thus, the need for raising awareness and enhancing the skills of occupational safety and health practitioners in recognizing work-related diseases and injuries.

The Work –relatedness was based on certain criteria and factors, namely:

- 1) evidence of disease
- 2) evidence of exposure
- 3) validity of existing data
- 4) epidemiological data-available and
- 5) other factors such as clinical and pathological data

The evaluation of diseases for work-relatedness must be based on sound and logical medical and occupational evidence. The likelihood that the disease was related to an occupation depended on the strength of supporting evidence. In addition, the present and previous occupational and medical histories of the worker were important in the evaluation of diseases to determine work-relatedness.

From 1997 to 2000, 1108 cases of injuries and illness were filed as work-related in the different SSS branches in Mindanao. There were 973 cases of injuries and 135 diseases mostly arising from the agriculture sector. The most frequent illnesses reported were diseases of the skin and subcutaneous tissues while injuries to the wrist and hand affected most of the claimants.

Dr. Cucueco concluded that recognizing work-related injuries and illness were important elements in establishing responsive and effective safety and health programs. Moreover, surveillance programs were valuable sources of data needed for decision-making by regulatory agencies and other policy-making bodies.

Judicious Use of Insecticides in Public and Agriculture

Dr. Raman Velayudhan,
Scientist,
Office of the World Health Organization Representative in the Philippines

At the outset, Dr. Velayudhan called for the judicious use of chemicals and pesticides in farms and homes. Otherwise, mosquito-borne diseases such as malaria, filariasis and dengue would spread, due to insects developing resistance mechanisms to chemicals previously applied to them. This would put scientific vector control at risk.

The judicious use of pesticides had become very important for a variety of reasons:

- 1) the arsenal of safe and cost-effective insecticides for vector control was rapidly disappearing due to increased insecticide resistance and the scarcity of new compounds for their development;
- 2) costs of insecticides had increased greatly; in some countries, insecticides outlay purchase alone accounted for more than half of the total budget of the vector –borne disease control programmes;
- 3) since the same class of compounds was being used in agriculture there was a risk of increased resistance in vectors, calling for close linkages with the Department of Agriculture; and
- 4) the misuse of insecticides was increasing in the countryside leading to deaths of exposed people.

The presenter recommended that all handlers of pesticides and chemicals should be licensed with the Fertilizer and Pesticide Authority (FPA) including sellers. This would make it easier for authorities to trace misuse of such pesticides. A policy of license revocation could be based on World Health Standards as well as on toxicity and hazards.

Since exposure to pesticides was both dermal and topical all labeling and packaging should be registered and approved by the FPA, complete with numbers.

Persons handling pesticides should be given periodic health exams, and/or laboratory tests. Personnel exposed to category 3 and 4 hazards must be required to take the annual medical exams.

The FPA Legislative Control of Pesticides in Relation to Occupational Safety

Ms. Estrella F. Laquinto
Fertilizer and Pesticide Authority

Ms. Laquinto explained that the Fertilizer and Pesticide Authority (FPA) had been created by Presidential Decree 1144 to regulate the importation, exportation, manufacture, formulation, distribution, sale, transport, storage, use and disposal of pesticides. FPA had established the National Pesticide Safety Program to provide training for medical and paramedical personnel on recognition, treatment and management of pesticide poisoning cases. In a total of 4,031 cases of pesticide poisoning monitored from 1980 to 1987, 558 or 13.84% were occupational.

Pesticides are being classified according to toxicity and hazard: From Category 1 downwards to Category 4 or slightly hazardous pesticides, with corresponding signal word, color and symbol. This classification system was significant in evaluating health effects and taking necessary precautions and measures.

In the protection of workers from pesticide exposure, the Department of Labor and Employment (DOLE) was submitting to FPA the certificates of accreditation of occupational health personnel. All workers were required to undergo periodic training on proper and safe handling of pesticides and first aid procedures in case of poisoning. Based on the guidelines on occupational safety and health of DOLE, pre-placement, periodic, and exit health examinations were required for all personnel working with pesticides. For workers exposed to Category 1 & 2 of pesticides, semi-annual complete medical examination were required. Emergency clinics, fire fighting equipment, eyewash facilities, and emergency shower should be accessible, regularly checked and maintained in hazardous workplaces particularly in pest control establishments.

In conclusion, rules and regulations had been adopted by FPA to regulate the use of pesticides in order to protect the worker's health from inherent toxicity thus preventing potential environment contamination.

Protecting Children's Health by Limiting Exposures of Pregnant Workers and Reducing Take Home Poisons

Dr. Irma R. Makalinao
University of the Philippines-Manila

Dr. Irma R. Makalinao discussed reproductive hazards that may or may not affect every woman or every pregnancy. The degree of effects to the unborn child depended on the intensity of hazards to which they had been exposed; as well as the time and duration and the manner of exposure. Cited were examples of reproductive toxins such as; dibromochloropropane, lead, arsenic, benzene, cadmium, antimony, carbon disulfide, oluene, xylene, among others. Toxicant damage to both the male and female system included: decreased libido and impotence; infertility, interrupted pregnancy, infant death or childhood morbidity, altered sex ratio/multiple births; chromosome abnormalities and birth defects. On the other hand, the five worst environmental threats to a child's health were: metals such as lead and arsenic; air pollution; pesticides, environmental tobacco smoke; and drinking water contamination.

Several studies were presented. One study had demonstrated an increase of underweight babies of pregnant women who had undergone dental x-rays. Another study had shown that toluene sniffing during pregnancy was associated with a pattern of malformations similar to the fetal alcohol syndrome (such as low nasal bridge, small chin, thin upper lips, flat midface, short palpebral tissues, etc.) Another study had given evidence that maternal lead levels during pregnancy, particularly around the 28th week, were associated with lower IQ test performance. According to a recent mercury warning for pregnant women, 1 in 7 newborns may be affected. Another study suggested the consumption by expectant women of fish containing high levels of methyl mercury could jeopardize their children's cardiovascular health and/or brain development. Pregnant women living close to farms using pesticides were facing an increased risk of miscarriages and/or of developing acute leukemia.

Potential toxic threats existed in everybody's home; perchloroethylene in the closets; pesticides in the fruit bowls; lead in the walls; mercury, dioxins and PCBs in the refrigerator; lead, chlorination by-products and arsenic through the faucet; and air pollution through the windows.

On a positive note, the presenter said that protecting children from harmful exposure to environmental contaminants was well within our grasp. Residual uncertainties cannot be an excuse for inaction when the weight of evidence established the likelihood of harm.

Pattern of Pesticide Use Among Cut-Flower Farmers

Dr. Lynn Crisanta Panganiban
Head, National Poisons Management and Control Center
University of the Philippines-College of Medicine
Philippine General Hospital

Dr. Panganiban made the point that the use of pesticides was still widespread in the agriculture sector despite much advocacy for organic farming. Highly unsafe practices put

farmers and their families at risk of pesticide poisoning. There was documentary evidence that Filipino farmers, in general, used 10 times more pesticides than was normally required. In 1987-1989, pesticide companies put 20,100 tonnes of pesticides on the market. Sales of pesticides had increased by 70% between 1988-1992.

The study presented by Dr. Panganiban, was based on a survey in 2003 conducted among cut-flower farmers in Benguet by the University of the Philippines – National Poison Management and Control Center. It covered a total of 208 farmers in Sitio Sadag, Barangay Bahung and in the Municipality of La Trinidad.

Some 208 farmers were interviewed, a majority (67.3%) being males with a mean age of 32.6 + years. Of the 570 household members engaged in agriculture, 19% were children less than 18 years old.

The top three of the ten most commonly-used pesticides included dithane (Mancozeb 35.1%); Lannate (Methocarb 34.6%); and Selecron (Profenofos 30.8%). Personal protective equipment (PPEs) used included: coveralls, goggles, face shield, cloth face masks; respirators, aprons, gauntlet gloves, boots, and others. The agricultural chemicals were stored in the field (60%) and at home in household cabinets without locks (20.2%). Some improperly disposed containers and sprayers were being deposited in rivers and streams. Around 34% respondents claimed that they were sick because of their work; 79% said that they tended falling sick 1-5 times every year. The route of exposure was through respiratory means (76%) and ocular (71.8%). Symptoms of illnesses appeared immediately after exposure (64.8%) and symptoms would last for 1-3 days in 77.5% of cases.

The study recommended the design and implementation of appropriate OSH programs to include farmer's education, regular biological monitoring, environmental monitoring, safe work practices, regular medical examinations and IEC materials. Guidelines on the use of pesticides must also be formulated and methods of crop protection, other than use of pesticides, should be vigorously explored.

Safety Environment Concerns in Mining
Engr. Eustoquio Estobo and Mr. Cirica Canta
Cagdianao Mining Corporation

The presenter discussed the policies and programs on safety, health and environment as well as the community development and information, education and communication activities of the company.

The main components of the safety and health program were:

- 1) organizational rules
- 2) safety meetings
- 3) management and employees trainings
- 4) safety inspection
- 5) accident/incident analysis
- 6) health control and services
- 7) emergency response and preparedness
- 8) personal protective equipment
- 9) safety promotions
- 10) community consultation and program dissemination.

The environment, community development and Information, communication and education programs on the other hand, were composed of :1) engineering control measures; 2) re-vegetation control measures; 3) marine resources development; 4) pollution control program;

5) environmental monitoring; 6) community development; and 7) information, communication and education (I.C.E.)

As a result of these programs, the Cagdianao Mining Company, as of April 2006, had run 6,140,000 man-hours without lost-time accidents. It was also the recipient of several awards and citations on Safety Operations and Environmental works since 2001. Moreover, it was able to provide employment to all unskilled labor in households in its nearby community; skills training programs for local residents were undertaken in close coordination with the Technical Education and Skills Development Authority (TESDA).

The company intended to give highest priority to the three key areas of Safety, Health and Environmental Protection.



OPEN FORUM:

In reply to a query about company-based AIDS prevention Dr. Estrella-Gust explained that RA 8504 of 1998 had made HIV/AIDS prevention policy and programs mandatory for all workplaces. Appropriate guidelines had been developed in accordance with the comprehensive workplace policy on HIV/AIDS, and had been printed by OSHC. The Center stood ready to assist companies in formulating policies and in launching tailor-made programs. In response to a question on whether or not studies had been carried out on correlation between pollution and IQs of children in Manila. Dr. Makalinao explained that it would be difficult to do such a correlation study in the Philippines. However, extensive research in other countries had revealed a shift of IQ levels of 0.6 points.

Luncheon Symposium

Augmentin: Behind the Scene Glaxo Smith-Kline Phils., Inc.

Amoxicillin is a anti-biotic with a broad spectrum of antibacterial activity against many gram-positive and gram-negative microorganisms. Amoxicillin is, however, susceptible to degradation by B-lactamases and therefore the spectrum of activity of amoxicillin alone does not include organisms which produce these enzymes.

Clavulanic acid is a B-lactam, structurally related to the penicillins, which possesses the ability to inactivate a wide range of B-lactamases enzymes commonly found in microorganisms resistant to penicillins and cephalosporins. In particular, clavulanic acid has good activity against the clinically important plasmid mediated B- lactamases frequently responsible for transferred drug resistance. It is generally less effective against chromosomally-mediated type 1 B- lactamases.

The presence of clavulanic acid in Augmentin formulations protects amoxicillin from degradation by B- lactamases enzymes and effectively extends the antibacterial spectrum of amoxicillin to include many bacteria normally resistant to amoxicillin and other penicillins and cephalosporins. Thus, Augmentin possesses the distinctive properties of a broad-spectrum antibiotic and a B- lactamases inhibitor.

Legislative Control of Pesticides in Relations to Occupational Safety and Health

Ms. Estrella F. Laquinta
Fertilizer and Pesticide Authority,
Department of Agriculture

Ms Laguinta dicussed the legislative aspects pf pesticides. Pursuant to PD 1144, the Fertilizer and Pesticides Authority (FPA) had adopted rules and regulations to regulate activities involving pesticides. They are classified according to levels of potential toxicity and hazards. Said classification is necessary to evaluate its health effects and to determine necessary precautions in handling fertilizers and pesticides. Occupational exposure to pesticides may be topical or systemic.

At the workplace level, Rule 1963.02 of the OSH Standards sets the guidelines for an Occupational Health program for workers exposed to pesticides. It includes regular and periodic trainings; the types and frequency of medical examinations; the range of laboratory tests; biological monitoring requirements; hygiene concerns and safety and security measures to be employed. For pest control establishments, special requirements like emergency equipment, clinics and other facilities were discussed.

SESSION 2: OCCUPATIONAL RISK MANAGEMENT II

Session Chair: Dir. Lourdes M. Trasmonte
DOLE Regional Office No. XII

Safe Handling and Disposal of Pesticides

Ms. Edna Callejas-Mijares
Managing Director
Jefcor Laboratories, Inc.

According to Ms. Callejas-Mijares PD 1144 defined pesticides as “any substance or mixture thereof, including active ingredients, adjuvants, and pesticide formulation, intended to control, prevent, destroy, repel or mitigate directly or indirectly, any pest.” They may be insecticides, fungicides, bactericides, avicide, rodenticide and the like. Chemically-speaking, they may be inorganic, organophosphates, organochlorines, carbamates, pyrethroids or botanicals.

Carbamates and organophosphates were both cholinesterase inhibitors and atropine was the antidote for poisoning. Organochlorines are nerve poisons for which Phenobarbital was the identified antidote. Pyrethroids like the organochlorines, are nerve impulse blockers. However, it has no known antidote so far, for poisoning.

Hazards in handling pesticides may be through intoxication (poisoning); fire; and environmental contamination such as in the discharge of products. Safety and emergency measures included pre-employment and periodic medical examinations for pesticide handlers, especially pre-exposure baseline blood cholinesterase levels for carbamate and OP handlers. Companies must also have basic first-aid materials and facilities and a resident nurse. In cases of emergency, arrangements for immediate assistance with a local hospital and doctor must be made. PPEs and emergency equipment such as showers and eye-wash facilities must be available while fire and evacuation procedures should also be well-known to all workers.

In case of liquid pesticide spillage, it was advisable to institute decontamination procedures based on the instructions given in the Product Data Sheet. A common procedure in such cases was the use of sawdust or granular absorptive clays. Solid spills on the other hand, generally were best removed with industrial vacuum cleaners and other absorptive materials. Disposal of obsolete stocks, contaminated packaging materials, filtration residues, aqueous wastes was through a method called controlled incineration process. Where this procedure was not available, disposal was through an approved land-fill site. Open burning was strictly prohibited under the Clean Air Act. Alternative methods to incineration for large volume wastes called for pyrolysis which was the thermal degradation of a substance without oxygen and resulted in the breakdown into elemental products. Another method was cement co-processing. Small volumes of waste on the other hand, could be buried with sawdust and lime.

In conclusion, pesticides are toxic but their use is inevitable. Understanding the chemistry of the product and mode of action is important for measures against intoxication and antidote application. Safe handling and waste disposal should be practiced at all times to safeguard our health and protect the environment from contamination.

**The Crop Protection Industry and its
Responsible Care Initiatives**

Mr. Simeon Cuyson
Executive Director
Crop Life Philippines

The speaker introduced CropLife as the association representing the Plant Science Industry. It was composed of R & D companies that produce and market crop protection products and products of modern biotechnology, through the application of cutting edge technology. It fully supports the Food and Agriculture Organization (FAO) Code of Conduct on the distribution and use of crop protection products.

As by 2020, total Philippine population would reach 120 million the production of agriculture products must increase by 50% over the next 15 years. However, arable land was now decreasing and pressure was being felt to reduce farming of marginal lands and to preserve fragile ecosystems. Intensive agriculture was therefore called for with the use of modern technologies and proven traditional practices. At the moment, there was much concern about the health, safety and environmental aspects of crop protection products.

Research and development efforts were now centered on the development of new and innovative, high quality products, and technologies favorable to health, safety and the environment. Locally, POP pesticides had been banned and phased out. Category 3 and 4 now predominated the market.

CropLife was advocating the life cycle approach to product stewardship. Its stewardship activities ranged from farmers/applicators trainings; distributors and dealers training; spray equipment maintenance to agro-medical stewardship. It promoted the 'safe use' in banana plantations such as the monitoring of nematicide residues in water; 'safer' application techniques such as bud injection; aerial applicators training; seminars for surrounding communities; and empty container management. In addition, empty drums of Bayer Crop Science products were collected and shipped to the BCS plant for rinsing, crushing, and dispatch to steel smelting plants. Innovative/new packaging techniques were put into place such as the shift from plastic to glass and the use of single dose water soluble sachets, and returnable drums/containers.

Collectively, the member companies went beyond the legal occupational safety and health requirements and standards. There were also continuing efforts to improve employees' working conditions to avoid accidents, injuries and other occupational illnesses.

Risk Exposure in Firefighting
SFO3 Dioscoro Baja, Jr.
Bureau of Fire Protection
Davao City

According to Mr. Baja, Jr., the Occupational Safety and Health Administration (OSHA) of the USA ranks fire-fighting as the most dangerous occupation in that country, even more dangerous than police work. When called to duty, the firefighter is at risk for death, burns, injury, diseases and illnesses. Personal protective equipment (PPEs) may reduce such risks, but their use can never make the profession completely safe. There are no ordinary or fires. While numerous variables combine in each fire scene all fires should be treated with respect and must be treated as being unique. Mr. Baja turned to three most frequent hazards facing fire-fighters: 1) burns; 2) major toxic elements; and 3) electricity. A fourth hazard -chemical, radiological and biological exposure- was a major concern in industrial settings.

There were three ways that a fire-fighter could get burned: conductive heat, convective heat and radiant heat.

Conductive heat is transferred by direct contact with the heat source. Examples are kneeling on hot floors or contact with hot debris. Convective heat on the other hand, is transferred through direct contact with hot gases. This was especially dangerous since the firefighter may not be aware of the contact as heat can seep in through the PPE used. Radiant heat contact works almost the same way convective heat.

Toxic elements were posing different sorts of dangers. There were many toxicants in ordinary household products. Wallpapers and lacquered wall coverings may contain acetaldehyde, formaldehyde, nitrogen oxides or acetic acids. Electronic components may emit polystyrene producing carbon monoxide. Carbon monoxide can cause disorientation and can stop a firefighter from rational thinking and breathing. Nitrogen oxide can make a person breathe faster, preventing a firefighter from holding his breath. Another toxicant - carbon dioxide- mixes with moisture in the eyes, nose and throat, causing coughing and hacking.

A third major hazard was electricity. Most fires in the Philippines were electrical in origin (62%). Firefighter may be exposed to electrical hazards when power lines were not shut off in the course of fire-fighting.

A fourth hazard were chemical, radiological and biological hazards. For fire-fighters and emergency personnel, this could be a matter of life and death. The mission of firefighter to save lives and properties, was made more complicated and dangerous where the quality of fire-fighting protective equipment was sub-standard.

To better protect fire-fighters, Mr. Baja recommended 1) proper training and constant practice in emergency situations; and 2) the exercise of extreme caution at all times.

**Health and Safety Program
Of the BFP-SRU for HAZMAT Response**

Major Jose Segundo Embang, Jr.
Chief Inspector, Special Rescue Unit
Bureau of Fire Protection, DILG

According to Major Embang, Jr. emergency or First Responders (FR) had twin objectives of saving lives and property. He then focused on rescue operations involving hazardous materials or HAZMAT. The legal bases of rescue operations included PD 1185 or the Fire Code of the Philippines; the guidelines of the National Fire Protection Agency (NFPA) of the USA and the Philippine Chemical and Hazardous Waste Emergency Management Program (PCWHEMP).

The Special Rescue Unit (SRU) was the main operating unit of the Bureau of Fire Protection Headquarters. Its mission was to act in any rescue emergency so that lives could be saved. When a HAZMAT incident happened and health and safety were at stake a dangerous situation could arise that may result to injuries and death. Cognition, Proficiency; and Physical competence served as criteria to evaluate the competency level of the SRU.

In a rescue operations the emphasis was on public safety, SRU team safety, and by-stander safety.

The First Responders' training objectives included proficiency in hazard assessment and analysis; full understanding of emergency response procedures; ability in planning;

familiarity with the whole spectrum of personal protective equipment; monitoring and detection; as well as knowledge of toxicology. All FRs must show highest performance in required physical fitness tests.

Mercury in Small Scale Mines

Engr. Ana Trinidad Francisco- Rivera
Environment and Occupational Health Officer
Department of Health

Engr. Francisco-Rivera pointed to the many uses of mercury in small scale mining operations, where it is being used for extracting gold from ore during the amalgamation process. She presented the results of several studies in different small mining sites in Mindanao such as in Sibutad, Zamboanga del Norte; Apokon, Tagum, Davao del Norte and updates on the Mt. Diwalwal.

Sampling stations were established in various areas to assess the following: drinking water supply, river quality assessment; effluent discharge; sediment/soil contamination; air quality and marine life.

The study showed that there were more workers with elevated hair and blood total Hg and Me-Hg levels compared to non-workers. Among the non-workers, there were more adults than children with elevated hair T-Hg and Me-Hg levels. There was a trend for higher levels of hair T-Hg and Me-Hg levels of directly exposed workers compared to indirectly exposed groups. Hair and blood samples showed a higher Me-Hg level among children as compared to workers directly exposed to elemental Hg.

Mercury storage at home could be a risk factor. The most common complaints among adults were musculoskeletal symptoms, headache, toothache, abdominal pain and frequent cough. For children, main medical findings were frequent cough, dermatological disease and conjunctival pallor.

Water and marine samples showed total mercury levels within national and international limits. However, ambient air levels of total mercury were 800 times above the prescribed national and international levels.

In Apokon, Tagum, mercury pollution was noted in some river systems, 15 kms from the mining sites. Three fish species were found to have high total and methyl mercury levels. Of the 889 children examined in Apokon, 12.72% showed high HG intoxication. Predominant medical findings were: underweight and underheight; gingival discoloration; adenopathy, dermatologic abnormalities and neurological findings.

In Davao del Norte, clinical correlates of maternal breast milk cord blood and meconium mercury levels showed fetal mercury exposure.

In Mt. Diwalwal, five out of 100 residents whose blood and hair samples were collected were recommended to undergo further health examination, for possible detoxification.

Recommendations made by the study include fish consumption advisories, mercury-free offices and hospitals; mercury-free communities; the elimination of equipment with mercury and the safe disposal of mercury-containing products like old batteries and thermometers. Proposed strategies focus on orientation seminars and trainings; information campaigns in coordination with local leaders, and health surveillance and monitoring by authorities.

Globally Harmonized System (GHS) of Labeling Chemicals

Engr. Nelia G. Granadillos
Chief, Environment Control Division
OSHC-DOLE

According to Engr. Granadillos GHS was designed as an international standard for chemical classification and hazard communication; a comprehensive approach to defining and classifying hazards; and communicating information on labels and safety data sheets.

The Philippines had agreed with the decision of international bodies to adopt the GHS as endorsed in 2002 by the World Summit on Sustainable Development and the APEC Chemical Dialogue. A multisectoral body composed of government and non-governmental organizations had been formed to oversee the full implementation of GHS in the country by 2008. Each sector had its own roles and responsibilities in achieving this goal. The OSHC, in particular, had integrated GHS into its mainstream programs.

The GHS included hazard classification criteria and hazard communication affecting protection and trade. Hazard classification criteria was being used to indicate the intrinsic hazardous properties of substances and mixtures. These hazards were classified either as health environmental or physical hazards. The use of label and safety data sheets for hazard communication provided information about the hazards of the chemicals and advice on safety precautions. To achieve a single globally harmonized system, principles of harmonization and comprehensibility were being considered. The adoption of GHS would enhance protection of human life and the environment worldwide; international trade involving chemicals would be facilitated, and there would be no duplication of testing and evaluation of chemicals to determine their hazardous effects.

It was expected that by 2008, countries would voluntarily adopt the practice of GHS of labeling chemicals. As part of an interagency effort to implement GHS nationwide, the Occupational Safety and Health Center was providing training on GHS in workplaces.

Construction Safety: OSH Problems and Measures

Engr. Orlando B. Anota
Safety Consultant
Hanjin Heavy Industries and Construction Company

In his presentation Engr. Anota warned that the present accident rates in the construction industry had reached alarming levels. Construction must still be considered as one of most hazardous industries. Despite some progress in terms of regulations, contractors were reluctant in complying with the prescribed safety requirements set by the Department of Labor and Employment in 2002.

He took pride that the Hanjin Construction Davao International Airport Project had been able to post five million fatal accident-free man-hours between November 1999 and (to) December 2005. These findings had been verified by the DOLE Regional XI. He presented several best practices which had made these achievements possible. He emphasized that OSH has its cost (a price) but that accidents were (are) much more expensive in monetary and human terms.



SESSION 3: OCCUPATIONAL SAFETY AND HEALTH PROMOTION

Session Chair: Dir. Chona M. Mantilla
DOLE Regional Office No. XIII

Occupational Safety and Health in the Public Sector

Ms. Esperanza Ocampo
National President
Philippine Government Employees Association (PGEA)

Ms. Ocampo made the point that public sector workers, through the PGEA, had realized the importance of OSH as a means of improving the quality of their work and lives. There was growing awareness that a culture of preventive OSH was essential to reduce the number of accidents, injuries, illnesses or death while achieving higher productivity and motivation of workers as well as better labor-management relations.

The PGEA had initiated concrete OSH programs in partnership with the Occupational Health Center (OSHC). The aim was to map out occupational safety & health programs tailor-made for implementation in the public sector. Existing policies, laws and best practices for safe and humane working condition were being examined and OSH concerns were included in Public Sector Collective Negotiation Agreements (CNAs).

The PGEA, in cooperation with the OSHC had conducted massive information and education campaigns and promoted the creation of OSH Committees at agency levels, mobilized resources as well as funded and formulated OSH Guidelines for the Public Sector.

The PGEA was now proposing the development of a comprehensive OSH Agenda for the Public Sector Unions. The unions must create an effective partnership for OSH workplace assessment, program implementation and monitoring.

The Socio-Demographic Profile of Violators of the Anti-Smoking Ordinance of Davao City

Dr. Susan Go
Philippine College of Occupational Medicine
Davao Chapter

According to Dr. Susan Go, the Davao City government's commitment for a healthy city was amply demonstrated by the passage of an anti-smoking ordinance in 2002. Armed with the ordinance, a campaign for its full implementation was initiated through multi-sectoral cooperation. A massive information and education program was being implemented in schools, workplaces, hotels, restaurants, and other establishments. This education campaign focused on both the effects of smoking and passive smoking. Support was made available for those who were willing to quit smoking to strengthen the program.

Dr. Go also presented a study on the socio-demographic profile of the violators of the anti-smoking ordinance of Davao City. The typical smoking ordinance violator was a male in his early adulthood. Violators were usually seen in food and entertainment establishments. These findings were offering important leads towards improving the implementation of the anti-smoking ordinance of the city; she specifically alluded to the potential role of anti-smoking education and campaigns among young males in alleviating the problems of passive smoking.

The crucial role of the workplace in the success of the campaign was emphasized. It was also pointed out that the program should focus on the smoking per se and not primarily the smoker.

A Proposed Course Syllabus on Occupational Safety and Health in the Engineering Curricula

Engr. Erwin B. Daculan
Professor, Engineering Department
University of San Carlos-Cebu

Engr. Daculan discussed the syllabus of an occupational safety and health course offered for the past two years by the EE/ECE Department of the University of San Carlos (Cebu City). Although the course had initially been offered to EE/ECE students, the proposed syllabus could also be redesigned and adapted to fit different engineering curricula. Its primary objective were not to mold safety-conscious students but to empower students for more thoughtful reflection on and practices of OSH throughout their working lives.

During the course students were forming cooperative learning groups to achieve certain collective objectives. Activities included training games, role-playing games, interactive class discussions, open fora, bulletin board displays, class t-shirt printing, hazard mitigation projects, safety training videos, etc. These activities could be supplemented by first aid and basic life support seminars and educational visits to OSHAS-18001-certified companies.

Seminar-workshops could be added to enhance the know-how of the students. The mixture of experiential learning and problem-based learning approaches had proven to be effective and were therefore recommended for replication. Finally, a number of requisite qualifications of the concerned instructor were recommended, including completion of the 40-hour basic OSH training required for safety practitioners.

Lock Out and Tag Out Program

Mr. Al W. Dionisio
Safety Officer
Top Rigid Industrial Safety Supply, Inc.

Mr. Dionisio observed that most industrial accidents were caused by the unexpected energization or start-up of machines or equipment or by the uncontrolled release of energy. This could be controlled by the installation of a lockout and tag-out (LOTO) system. Lockout & tag out devices were being used to control different hazardous energy sources found in most manufacturing & industrial plants. In 1989, the US Occupational And Health Administration (OSHA) had introduced LOTO standards which, in the absence of local standards, could be used as reference by interested establishments.

Shown were specific steps for affixing, removing or transferring of lockout/tagout devices during shut down or repair of machinery or equipment. Also included were the steps for shutting down, isolating & blocking hazardous energies

There were several types of LOTO devices. He emphasized however that the devices were only one part of the system. The LOTO program specifically outlined the purpose, authorization, rules, notes, and techniques to be utilized by the employees on a daily basis to guard against the unexpected energizing, start up or release of stored energy, which could cause injury to the workers.

In conclusion, lockout/tag-out devices were recommended for all industrial, particularly manufacturing, plants to eliminate accidents during servicing, maintenance and shutdown.

OPEN FORUM

On the suggestion from the floor that OSH should not only be included in the engineering curriculum but also integrated in other courses as well, Engr. Daculan proposed to approach CHED on this matter and, where necessary, to adapt the OSH curriculum to CHED's needs.

The representative from Xavier University suggested, that to close the knowledge gap on OSH in LGUs, their representatives should be given OSH training. In response Dr. Estrella-Gust referred to the draft National OSH Medium-Term Plan, 2006-2010 which provided for human resources development and OSH advocacy in the public sector, school, LGUs etc.



Day 2, May 25, 2006

SESSION 4: POLICIES AND PROGRAMS: ZAP IN MINDANAO

Session Chair: Asst. Regional Dir. Nasser B. Munder
DOLE Regional Office No. X

**OSH in DOLE-Stanfilco:
Best Practices in Manufacturing**
Mr. Filemon Sanchez
DOLE-STANFILCO

The presenter introduced DOLE-Stanfilco as a multinational agricultural company and a subsidiary of US-based DOLE Food Company, the world's largest producer and marketer of fresh fruits, vegetables, cutflowers and a growing line of packaged foods. Considered as the fresh product division of Dole Philippines operating all over Mindanao, Stanfilco was engaged in the production, shipping, sales, distribution, and marketing of high-value crops to Asia and the Pacific.

He then highlighted the company's safety initiatives in its box manufacturing facility in Mindanao, the Carmen Corrugated Containers. These included safe and healthy working conditions in all the facilities in full compliance with OSH standards. The company had already earned several international certifications such as ISO 9001, ISO 14001, HACCP.

Also showcased were the company's TB-Direct Observation Treatment, Short-Course (TB-DOTS) in the Workplace Program, an expression of its Corporate Social Responsibility. The program endeavored to ensure proper control and management of TB in the workplace and nearby communities. This program was a success story, with a potential for serving as a model for replication in Mindanao.

On a final note, the speaker stressed that effective safety programs were not only the result of compliance. To make a tangible difference, one must assess the corporate culture, including its overall operations and values. The business sector could make significant contributions in addressing health concerns in communities where it operated. As an organization acting in a socially responsible manner, the firm should continually improve the well-being, not just of its employees but also of all its stakeholders: clients, supplies and the community.

Environmental Safety
Mr. Abdon A. Patagoc, Jr.
Manager, Environmental Department
Chiquita Unifrutti Phils., Inc.

Mr. Patagoc, Jr. defined "Environment" as both a source of production inputs and a catch basin of discharges and emissions. Pollution of the environment affected the quality of the food we were eating, the water we were drinking and the place we were living in. Thus, a great responsibility rested upon individuals and firms if we wanted to preserve the environment intact for future generations. This was the reason for the environmental safety program embarked upon by his company; it was aiming, among others, at reducing and recycling farm wastes and thus implementing a more efficient farm management

Operated on the premise that the workforce was its most important asset, the company was fully committed to protect its employees from on the job and off the job accidents

Thus, the company's Safety and Loss Prevention Program, aimed at minimizing or eliminating workers' occupational risks, implementing realistic Zero Accident Programs, and establishing a comprehensive safety program that provided a pro-active implementation of policies without jeopardizing operations. The company's action plan included the creation of a EHS Committee, orientation of Environmental, Health & Safety Committee Members, identification of the programs, monitoring of workers' activities and conduct of EHS Meetings.

The components of the company's Environmental Safety and Health Program were in brief: Public Safety, Transit Safety, Environmental Protection, Emergency and Disaster Preparedness, Property Protection, among others.

Developing a Team Culture in a Food Manufacturing Facility

Ms. Ma. Isabel Malferrari
Manager, Corporate Management Development

Ms. Malferrari started her presentation with a video clip of the production processes of Del Monte. It covered activities from safe handling of raw materials to proper disposal of wastes. The video presentation also included Del Monte's community assistance and capability-building programs.

The company's DMPI's program was based on a system of beliefs, attitudes and aptitudes to improve the quality of workers, products and processes – through teams. To develop a team culture, the company was focusing on the workers by improving the leadership skills of ordinary workers, providing the workers with learning opportunities, organizing self-directed teams; implementing "quality ideas"; celebrating of successes; and recognizing "quality teams".

This program had so far, produced self-directed and quality-conscious workers and teams with high levels of work satisfaction. They had become key agents of continuous growth. Consequently, the company was registering significant gains such as increased cannery production; improved pineapple recoveries; reduced can damage; improved labor productivity; better work environment; professional growth of workers; improved environment and community programs, and recognition from the industry and community.

In conclusion, building a team culture was an executive decision on a cost-effective strategy that involved commitment at all levels, recognition of achievements and rewarding of people.

Managing Risk in Handling & Transporting Chlorine: The 3rd Party Logistics Experience

Mr. Samuel Suarez
Quality Assurance, Safety & Security Manager
Magsaysay Group of Companies

Mr. Samuel Suarez observed, that in logistics operations, workers were exposed to real and potential chemical hazards. Hence, there was also a great need for sound safety practices to protect the health and welfare of the workers.

His company had instituted its own safety program for door-to-door transports of chlorine cylinders from the Mabuhay Vinyl Corp.'s Iligan Plant to its Premium Bleach Plant in Sta. Rosa, Laguna. The program involved different phases: pre-operation, operation proper and post-operation. It focused on journey management plans, communication plans, defensive driving and fatigue management, material handling safety, pre-operation inspection, SOPs for loading and unloading of chlorine cylinders, on-site and off-site emergency preparedness

and response plan, MSDS right-to-know stations in warehouses and trucks and proper labeling of chemical containers.

He suggested that manufacturers and third-party logistics providers should initiate safety programs covering safety instruction of all contractors, toolbox meetings, periodic audits of safety management systems, hazard identification and risk assessment, planned inspection and maintenance, periodic training and monthly safety performance reporting.

**Western Mindanao Power Corporation's (WMPC) Quality, Environment
Health & Safety Management System (EHS)**

Engr. Ronald C. Macaspac
Safety & Environmental Engineer
Western Mindanao Power Corporation – Zamboanga City

According to Engr. Macaspac WMPC's Quality, Environmental Health and Safety Management System was being guided by such principles as customer focus, leadership, involvement of people, process approach, systems approach to management, continual improvement, factual approach to decision making, and mutually beneficial supplier relationships.

In addition, the WMPC's EHS culture was being built through training, awareness and competency; environmental aspects and occupational hazards determination/assessment; EHS inspection; incident reporting and investigation; environmental monitoring; housekeeping program (5 S); hazardous waste management; solid waste management; community relations; occupational health management; emergency preparedness and response; and external and internal environmental health and safety audit.

Specific activities to achieve EHS System Compliance included: WMPC Multi-partite monitoring team; De-sulfurization equipment; Wastewater treatment plant; Emission monitoring equipment; Medical and dental outreach programs; Community consultation and environmental information drive; River clean-ups; Shore-line tree planting; Emergency drills; Oil Spill Equipment; Solid/Hazardous Waste Management; Noise pollution barriers; Use of Fire fighting pumps; provision of Personal protective equipment; and Medical, hearing and drug test. So far the company recorded "2,925 days Without Lost Time" and "1,220,795.76 Man-hours Without Lost Time Accident".

Recognition received by WMPC's EHS includes "Merit Citation for Effort of Rehabilitating Rivers" and "Certification for Compliance to DENR Standards".

The company intends to implement the following projects in the future: 1) Installation of Noise Reduction Baffles, 2) Air Sampling System, 3) On-going Recycling of Waste Rugs, and 4) 299 hectare land for Reforestation.

Occupational Safety and Health at La Frutera

Ms. Rosemarie Sira
HR Manager
La Frutera Inc.

For Ms. Sira, safety and health in the workplace was critical for the success of a business regardless of the size of the workforce. Any business owner had a responsibility to provide a safe and healthful workplace and to ensure that the business did not create safety and health problems for the workers, customers and the general public. In La Frutera, this goal was being achieved through the use of four different management systems: Quality, Social, Environment and Occupational Safety and Health.

The company's OSH programs had started with a Zero Accident Program for its drivers. The program had then evolved and was now covering the whole workforce.

The characteristics or "visible signs" of this kind of culture included: Policy statements visibly displayed; Good employee morale and fewer customer complaints; Employee involvement in all safety and health issues; Maintenance systems; and general awareness of safety rules and emergency procedures. The package of OSH initiatives had led to a significant decline in the number of accidents, rise in productivity and improvement of the company's goodwill and public image.

Distance Learning on Occupational Safety & Health

Ms. Rosanna M. Tubelonia
Chief, Training & Public Information Division
OSHC-DOLE

According to Ms. Tubelonia, under E.O. 307, the OSHC was the recognized training institution on OSH. It had so far developed some training 20 modules on various OSH topics. Due to an significant increase in the demand for OSH trainings over for the past few years, especially from outside Metro Manila, the OSHC had developed alternative modes of learning, to reach a wider audience. One of these approaches was the conversion of the 40-hour mandatory Basic OSH course into the distance mode. Under the mode, the learner makes use of modern facilities and equipment such as the internet, cable and video materials to facilitate inter-action between and among the tutors/facilitators and fellow learners.

For the pilot course, the OSHC was accepting a maximum of twenty-five on-line learners on a first-come-first served basis. The course would run for 8-10 weeks. A Certificate of Completion is being be issued to those who have successfully finished the course.

Workplace Safety & Health Practices for Better Results and Productivity

Engr. Wesley D. Tan
Labor Enforcement Officer III
DOLE– Regional Office No. IX

Engr. Tan described the first training on occupational safety and health for government personnel in the Zamboanga Peninsula Region conducted in November 2005. A joint project of the Department of Labor and Employment (DOLE) and the Civil Service Commission (CSC), the training had been designed to equip civil servants with necessary knowledge and skills for the improvement of working conditions in the public sector and ultimately a better delivery of programs and services.

A series of OSH lectures on occupational safety and health topics and actual ocular inspections culminated in the presentation of recommendations on hazards prevention and control. At the end of the training, participants had formulated re-entry plans on the safety health program for their respective offices. Their safety and health concerns included in particular, fire exit and equipment; ventilation; and workstation safety.

The DOLE and CSC were planning to institutionalize the training program. A pool of trainers would be composed with the help of former participants and experts from concerned government offices. Training programs should be made available to all government offices in the Zamboanga Region, especially Local Government Units.





SESSION 5: POLICIES AND PROGRAMS: ZAP IN MINDANAO

Session Chair: Engr. Emmanuel A. Capili
President, Mindanao Safety Association, Inc.

Building a Safe & Healthy Culture in the Workplace: The Del Monte Cannery Experience

Mr. Arthur B. Quiblat
Manager - Safety, Environment & Teams Administration
Del Monte Philippines, Cagayan de Oro City

According to Mr. Quiblat, a safe and healthy culture was an important condition for attaining quality and excellence in Del Monte Cannery. Its OSH program involved eight (8) basic elements: safety control and emergency preparedness; industrial hygiene; occupational health; environmental protection and community relations; social accountability; capacity building on OSH; OSH-management systems and others.

Del Monte was a recipient of various awards that recognized its best practices on occupational safety and health. Del Monte was a consistent awardee of Regional Champion in Fire Olympics; Most Outstanding Labor Management Council Award for 2005; National Hall of Fame Award for 2005 from PMAP; the company had also been recognized by the Regional Disaster Coordinating Council and TESDA.

Following the motto "Together, everyone achieves more on OSH", Del Monte was building a solid health and safety culture. This had been achieved through a holistic process, dedication to OSH, passion for quality and teamwork among all stakeholders including the union, the management, government organizations and the NGOs.

Anticipating Danger Means Avoiding Accident

Mr. Ricardo A. Cinco
Safety Manager
Philippine Sinter Corporation
Villanueva, Misamis Oriental

Mr. Cinco introduced the Philippine Sinter Corporation as the sinter production facility of a Japanese steel corporation. It produced annually 5 million tons of sintered ore for export to Japan, India, Taiwan and Australia.

The company had significantly reduced its "slight injury cases" to less than 10 case per annum, through the implementation of its "Danger Anticipation" approach in accident prevention. The method had two aspects: understanding the work situation and anticipating potential accidents. Employees were involved in identifying hidden dangers in their work area and were involved in preparing countermeasures to prevent accidents. A toolbox meeting was required before workers were starting their work.

This approach to danger anticipation was recommended for replication by other companies facing similar risks and hazards in their operations.

**Moving Towards a Healthy and Safe Work Environment:
A Challenge to the Power Industry of Mindanao**

Engr. Diogenes B. Esmade, Jr.
Principal Engineer
Pulangi Hydro-Electric Power Plant
National Power Corporation, Bukidnon

Engr. Esmade reported that Pulangi 4 Hydroelectric Power Plant (Pulangi HEP 4) was the biggest Hydroelectric EP plant in Mindanao with a generative capacity of 255 MW. Its Integrated Management System had been certified on ISO 9001 for Quality, ISO 14001 for Environmental and ISO 18001 for Occupational Health and Safety.

Its OSH policies and programs were consistent with the Zero Accident Program and included annual physical examinations and work environment measurements; to this should be added a HIV AIDS Program based on RA 8504, a Drug Free Workplace program based on RA 9165, TB prevention and control, and the prevention of lifestyle-related diseases. Problems encountered in the implementation of its OSH programs were related to adverse attitudes of some personnel towards the system, difficulties in overcoming "old practices", additional workload related to documentation and changes in procedures as well as budgetary constraints. The OSH programs were being sustained, through regular internal audits and assessments; continuous training, networking with other organizations, and full management support. The Management of Pulangi HEP 4 remained focused on enhancing OSH as their tool to improve working conditions and provide better services to customers.

Occupational Safety and Health Program for Security Personnel

Major Sebastian C. Bonghanoy, Jr.
Security Management Specialist and Vice President
Region XI Security Association

Major Bonghanoy observed that in Region 11 security services were employing a total of 15000 personnel: security consultants, escorts, guards, house detectives, watchmen and private detectives.

Security personnel was exposed to various risks and dangers in the performance of its duties. Employees could be wounded, maimed or killed in dangerous operations or posts; they might be exposed to dangerous chemicals; fall prey to animals; be subject to verbal, mental and emotional abuse, among others. Often, security guards were not provided with protective tools and equipment, and security agencies had difficulties enlisting the support of the client company. Security guards were being paid for eight (8) hours of work but were often performing twelve (12) hours of duty. There was only one security agency in Mindanao that was implementing minimum wages.

While security personnel was considered marginalized because of their situation and suffering from precarious employment conditions, their services were most essential for the protection of operations of goods and services. They helped to create the danger- and accident free environment that allowed managers and employees to do their jobs effectively, without fear and harassment. Major Bonghanoy strongly recommended that client companies would give high priority to the health and safety not only of their own staff but also to their security personnel. Government agencies like PADPAO and PNP were urged to look into the problems of security guards in Mindanao.

**Employment Guidelines
in the Construction Industry**

Mr. Manolito P. Madrasto
Executive Director
Philippine Construction Association

Mr. Madrasto pointed out that the construction industry was at present employing some 1.78 million workers including 95% as project employees (1.7M strong). Of these, 40% or 680,000 were (are) located in Metro Manila. Under normal circumstances, construction crews were composed of the following specialties: project supervision; site preparation; rough works; finishing works; and clean-up works. In 1993, the Philippine Construction Association, together with the now-defunct BUILD, a union of workers in the construction industry, cooperated in formulating a set of rules to promote harmonious employer-employee relations and to ensure the protection and welfare of construction worker. The outcome was Department Order No. 19 of 1998. Regarding OSH, the D.O. led to the creation of a Construction Industry Tripartite Council. The Council was now in the process of reviewing D.O. 19 to improve it and eventually to develop a Magna Carta on Labor Standards in the Construction Industry. He concluded that much remained to be done in the area of OSH but with active tripartism, the outlook for OSH in the construction industry appeared to be very positive.

**Occupational Safety and Health –
Work Improvement for Neighborhood Development (OSH-WIND)**

Director Susana Evangelista-Leones
Bureau of Agrarian Reform Beneficiaries Development, DAR

Dir. Evangelista-Leones introduced the OSH-WIND as a two-year project between the Department of Agrarian Reform (DAR) and the ILO to promote OSH awareness among agrarian reform beneficiaries (ARBs).

There were four project areas: Isabela in Region II; Bohol in Region VII; Negros Occidental in Region VI; and Davao del Norte for Region XI. Project strategies included: the integration of the WIND program in existing programs of the DAR in ARCs; collaboration with institutions engaged in OSH; development of OSH champions, para-technicians and establishment of Help Desks; and awards and recognition for ARB OSH adoptors.

Several challenges were identified during the initial implementation phase of the approach in the rice farms of Isabela: difficulties in identifying impact indicators due to absence of OSH for agriculture and the slow adoption of OSH measures by ARBs on a voluntary basis. Phase 2 of the project would cover sugarcane, banana, and coconut plantations as the target areas.

OPEN FORUM

Several participants commented on Maj. Bonghanoy's recommendations for client companies to provide for necessary protective equipment to security guards like hard hats, gloves, armored vests and others. He observed that agency guards were not provided with functioning communication equipment and often had to buy batteries on their own. The problem was how to win the hearts and minds of the client companies to solve the OSH problems of security guards. Major Bonghanoy confirmed that the security industry was beset by many problems such as underpayment, overwork, moon-lighting of security guards, and lack of protection by PADPAO, PNP, etc. There was an urgent need to overcome marginalization of security guards and to improve their working conditions. This was the responsibility of both client companies and security agencies.

One participant made a strong plea for giving priority to the quality of water supplies for the stakeholders and the workers. Companies should introduce strict monitoring of the quality of water that was being served to this staff. In response to the query on water quality, Mr. Quiblat explained that the food industry was regularly monitoring water quality in compliance with local, national and international audits. In fact, the monitoring was so stringent that any company failing quality standards, was being banned from supplying its products to certain markets.

Regarding underpaid security guards, a union representative observed that non-compliance with the minimum wage orders entails criminal liability; minimum wages should always be enforced to ensure basic income for security guard and to prevent them from getting involved in criminal activities.





**PLENARY SESSION 2: TOWARDS ACHIEVING ZERO ACCIDENT AND
PROMOTING WOREKRS' HEALTH**

Session Chair: Director Gloria A. Tango
 DOEL – RO XI

The Zero Accident Program Draft Master Plan

Dr. Dulce P. Estrella-Gust
Executive Director
Occupational Safety and Health Center, DOLE

Dr. Estrella-Gust explained that the Zero Accident Program (ZAP) was a long-term strategy to promote safety and health of workers through advocacy, capability-building, compliance, network/linkages and productivity link-up. In 2005- and early 2006, the OSHC had embarked on a series of ZAP Seminars and Regional Planning Workshops. This was intended to further build the capabilities of the regions to sustain OSH programs while the results of the planning workshops were to serve as inputs to the formulation of the National OSH Medium-Term Plan 2006-2010. There were four such workshops implemented with a total of 96 participants including Regional Directors and their Asst. Regional Directors.

The workshop had achieved the following results: 1) OSH should be integrated into existing programs of the regions; 2) ZAP should be enhanced by the use of mass media; 3) there was a need to network with various groups; 4) specialized trainings was needed for labor inspectors, economic zones and other selected or priority groups on OSH, ZAP and productivity; 5) OSH inspection should be improved through safety audits and WEM, health and safety committees in economic zones. Several OSH-specific initiatives and plans were identified such as the establishment of a mini-OSH Center in Cebu; the conduct of the 1st Mindanao Summit; an OSH Summit in Panay; and the development of IEC materials on ZAP. The mainstreaming of ZAP in regional DOLE programmes could be accomplished by designating ZAP focal persons in the regions.

Mindanao Framework on OSH

Dir. Ponciano M. Ligutom
DOLE-Regional Office No. IX

Dir. Ligutom presented the OSH Framework for Mindanao designed to create a culture of occupational safety and health. Hopefully, the Summit would bring into sharper focus Mindanao's concerns on OSH; good practices on OSH; resources for the improvement of OSH in workplaces (through a network of OSH practitioners, OSH training organizations and many others) ; a network to address OSH concerns; and mainstreaming OSH in small, micro and informal sector enterprises. To achieve this, inputs like the proposed Mindanao situationer, OSH laws and policies and resources by various stakeholders would result in the establishment of a regional OSH culture. Continuous feedback among stakeholder should be maintained to ensure refinements in regional OSH policies and programs.

WORKSHOP

The workshop session was addressed the following questions:

1. What would be doable in your institutions/agency/association/establishment in terms of preventing work-related injuries and illnesses and promoting the health and safety of workers?

2. What strategies would you use and how would you go about it?
3. How would you start the program?

The panel of facilitators were the following:

- Dir. Ma Gloria A. Tango; Dir. Chita DG. Cilindro; Dir. Ponciano M. Ligutom;
- Dir. Lourdes M. Trasmonte; Dir. Chona M. Mantilla;
- Dir. Dr. Dulce P. Estrella-Gust; Engr. Ronald Macaspac of the WMPC;
- Mr. Jose Diaz III of Del Monte Phils.; Engr. Eustaquio Estobo of The Cagdianao Mining Corp.; Engr. Teodoro Cahoy of SOPI-Cagayan de Oro; and
- Representatives from the Xavier University Ateneo de Cagayan and Lapanday Crop



WORKSHOP OUTPUTS

1. Doable Programs/Activities to Further Strengthen OSH in Mindanao

Key Result Area	Programs/Activities	Remarks
1. Networking and Linkages	1.1 continue close coordination between and among DOLE Regional Offices, the Bureau of Working Conditions and the OSHC 1.2 utilize local/regional networks on productivity; child labor, etc. 1.3 promote linkage between and among the private sector, government and non-government organizations	Organized regular meetings/consultations
2. Advocacy and Capability-building	2.1 advocacy through: <ul style="list-style-type: none"> - sharing of best practices - osmosis approach - posters on OSH in the local dialect - mobilize the necessary resources 2.2 capability-building through: <ul style="list-style-type: none"> - conduct of focused OSH trainings for labor-management councils (LMCs), health and safety committees (HSCs) environment, health and safety (EHS) units - small companies to network with large companies - government support for the small companies and the informal sector - small and medium enterprises (SMEs) to join professional groups, associations for technical assistance 	Committees/councils should meet regularly Large companies can conduct public offerings for small companies Big brother, small brother approach
3. Resource Mobilization	3.1 direct resources for the following activities: <ul style="list-style-type: none"> - accident prevention - data gathering 	
4. Technical assistance	4.1 developmental and regulatory approaches to encourage OSH culture in all workplaces 4.2 local network of OSH practitioners 4.3 records to workers and workplaces without accidents and or injuries 4.4. for the updating of OSH standards 4.5 monitor medical tests done during annual physical examinations 4.6. gender issues- look into the health of male workers and domestic violence	Monetary rewards are secondary Tap sponsors to provide medical services to workers

2. Strategies to be Employed to Achieve Said Programs/Activities

- 2.1. organize associations like the Northern Mindanao Safety and Health Association to facilitate compliance with the requirements for accreditation of the organization and as safety and health practitioners/consultants, individually
- 2.2. integrate OSH into the school curriculum
- 2.3. strengthen enforcement in the area of OSH
- 2.4. change culture and mindset of employees

3. To start/strengthen the programs

- 3.1. OSH should be integrated in the Collective Negotiation/Bargaining Agreements (CNAs/CBAs)
- 3.2. use OSH WIND as model for OSH advocacy in agricultural undertakings
- 3.3. promote health and safety as a way of life at the home and in the workplace
- 3.4. OSHC to step up its efforts in the following areas:
 - 3.4.1. improve library services and facilities with its database of users and materials;
 - 3.4.2. complete its researches esp. on Medical Surveillance; Employee Compensation claims; and linkage between productivity and OSH
 - 3.4.3. continuously review curriculum of current OSH training offerings and distance learning;
 - 3.4.4. advocacy for OSH policies; resource mobilization for ZAP for inter-agency committees on AIDS, Drugs and prevention of Tuberculosis at the workplace
 - 3.4.5. strengthen OSHC presence in Cebu with a mini-OSH Center
 - 3.4.6. follow-up activities to the 1st Mindanao Summit on OSH: project proposal on OSH and ZAP on Mindanao; Directory of Participants for posting in the website
 - 3.4.7. provision of various technical services;
 - 3.4.8. Monitor ZAP nationwide- especially the various Memorandum of Agreements
 - 3.4.9. conduct OSH Summit in Cebu
 - 3.4.10. conduct of OSH Forum in General Santos City

Special issues and concerns raised during the workshop discussions, in particular:

- Lack of data on the fishing and informal sectors in Mindanao- DOLE Regional Offices IX and XI should address this concern
- Stress as a workplace issue: Programs available through OSHC to SOLVE (Stress, Tobacco, Alcohol, HIV/AIDS, Violence) and the Employees Assistance Program
- OSH should also be advocated in government offices.
- The next Mindanao Summit, should include topic/s on “How to Set Up Safety and Health Programs” instead of “Best Practices”

**Best practices on OSH for
Micro Enterprises and Farmers in Asian Countries**

Kenichi Hirose
Social Protection Specialist
Sub-regional Office for South-East Asia and the Pacific
International Labour Organization, Manila

Mr. Hirose discussed the participatory approach to OSH used in ASEAN countries with focus on best practices for micro enterprises and farmers. The objective of this approach was to address multiple workplace needs; implement low-cost and practical improvement programs; gather local wisdom and initiatives; develop self-sustaining cooperation networks; and to mobilize local and national support

He presented the best practices emerging from projects in some ASEAN countries such as: Home Workers Training in Cambodia; WIND (Work Improvement in Neighbourhood Development) in Vietnam; WISE (Work Improvement in Small Enterprises) in Thailand; WISCON (Work Improvement for Small Construction sites) in Cambodia; and child labor project using the OSH approaches also in Cambodia.

All these above projects had used action checklists, training of trainers, presentation of pictures for comparative approaches to learning and community participation of farmers, husbands and wives, construction workers, homeworkers, and other worker categories.

Tangible results included improvements in living, health and working conditions and a decrease in occupational injuries. Critical to the successful outcome were: linkages with business skill trainings; mobilization of the networks of inspectors, entrepreneurs' and NGOs in the community; policy support provided by the central government; the use of ready-made training materials and practical tools; active participation of local trainers; direct and positive communication among the project implementers and local beneficiaries; the mobilization of local resources; and political support from governors and other local officials.

CLOSING CEREMONIES

Dr. Dulce P. Estrella-Gust presented the draft Joint Resolution which the participants overwhelmingly approved for adoption. Copies of the following Resolution were circulated for signature by all participants.

Summit Joint Resolution

Whereas, Occupational Safety and Health (OSH) is a basic workers right and an integral part of development priorities under the Medium Term Philippine Development Plan 2006-2010 and the national Framework of action for Decent Work;

Whereas, socio-economic development must go hand in hand with full compliance with OSH standards and effective implementation of related programs at national, regional, local and enterprise levels;

Whereas, there is a need to develop and adopt an Occupational Safety Health plan for Mindanao based on full commitment and involvement of all partners, especially government, employers and workers organizations, civil society and academe;

Whereas, occupational safety and health plan and programs must cover workers in all sectors, local and overseas, including the vulnerable groups in the formal and informal sectors;

Whereas, existing systems on policy development and enforcement, on prevention, compensation and rehabilitation must be harmonized, and strengthened;

Whereas, priority must be given to capability building especially, skills development of OSH practitioners, to ensure the effective delivery of occupational safety and health technical services to an increasing number of workplaces;

Whereas, further strengthening of cooperation among stakeholders in the Philippines, and with international partners like ILO, WHO, JICA, the Global Environment Fund program and ASEAN among others holds great promise for raising the effectiveness of OSH strategies and programs;

We, the participants of the "First Mindanao Summit on Occupational Safety and Health", representing stakeholders in the private and public sectors and civil society, commit ourselves to develop and implement an institutional and/or regional Zero Accident Program component for Mindanao as a contribution to a comprehensive and integrated OSH Plan and Program for the country in close cooperation with national stakeholders and international partners.

Done at the Waterfront Insular Hotel, Davao City this 25th day of May 2006."

Director Chona M. Mantilla of DOLE Region XIII facilitated the closing ceremonies by introducing the participants, and guests sharing their reflections on the outcome of the Summit and offering guidance on the future direction OSH in Mindanao.

Reflections from participants:

Engr. Jose Torrejon of Western Mindanao observed that the two-day event had been very successful and well organized. However, there was room for improvements the next time around, regarding time management and the selection of topics. He congratulated the organizers and presenters for sharing such a wide range of OSH practices which offered themselves for replication and benchmarking.

Engr. Teodoro Cahoy of SOPI Cagayan de Oro reflected on the positive outcome of the summit and thanked the organizers and DOLE for facilitating the attendance of such a large number of stakeholders. He commended the “No Smoking Policy of Davao City” and the promising results as being due to the full support and commitment of the proponents. He encouraged everyone to pursue the implementation of accident prevention as a major challenge for all stakeholders.

Mr. Jorge Alegarbes., TUCP-Davao president congratulated the organizers for conducting this first OSH Summit in the region. The large attendance was a manifestation of the keen interest in OSH matters by so many stakeholders. The trade unions had been cooperating closely with the implementation of OSH programs. Although OSH programs involved certain cost, the money was well spent and an investment in the well being of the workers. He encouraged all the workers to wear the PPE’s to protect life and limb.

Mr. Joel Aton of Region XII welcomed the Summit as an effective joint undertaking by stakeholders from the private and public sector. It was a very enriching and refreshing experience for all participants. While most were already implementing OSH programs there was always scope for improvements due to new developments and in the light of best practices developed elsewhere. The presentations of the Summit were most useful in providing excellent data.

Mr. Alfredo Eusebio Jr. from CARAGA congratulated the organizers and said that this summit was very beneficial to his company. He commended the speakers from government, academe and private sectors for (that) sharing their respective experience and research. He noted the various presentations on “Emergency Preparedness” but regretted the absence of a topic presented on precautionary programs for earthquakes.

Closing Messages



Speaking on behalf of DOH, Secretary Duque, Dr. Nemesio Gako Assistant Secretary, Department Of Health noted that the theme “**Building a Culture of Work and Safety**” reflected the importance of building partnerships and inspiring coordination among different government agencies and civil society in dealing with environmental and occupational health issues. He emphasized the joint responsibility of all sectors towards protecting human health and the environment to attain sustainable development.

He mentioned the contributions of Mindanao to economic development though an increase in investment and employment in various sectors such as agriculture, manufacturing and mining. He stressed that the health and welfare of the workers was the building block of the economy; it should be given fullest attention by providing them with a healthy environment, clean water and air and safe workplaces. According to him, “**Health at work is a priority concern**”.

The development of the country depended on a healthy citizenry. Here the responsibilities of government agencies should be rationalized and streamlined to assure optimal resource management. Emphasis should be given to strengthening existing environmental and occupational health policies to the development of infrastructures, information systems to the development of support services and to human capital formation. He stressed that education plays a vital role in inculcating safety and health even in schools.

He also mentioned that all of us were responsible for our own health. It was important for us to rise, walk, exercise and to practice healthy lifestyles. To this effect, he emphasized the formula “S – E – X”. **S** for Stop smoking and avoid stress; **E** for eating the right foods and **X** for Exercise to move our body.

In conclusion, he felt that this Summit had provided an important forum for the exchange of information and expertise in the field of OSH; that it further strengthened the domestic base through the tripartite approach to ensure that national government offices, local government units, the private sector and non-government organizations would work closely in an atmosphere of cooperation and unity.

As head of the Mindanao Economic Development Council (MEDCO), **Undersecretary Leyretana** welcomed the Summit as an important contribution to economic and social development in Mindanao. In current turbulent and uncertain times, OSH provided indispensable ingredients to attain quality work and world-class labor competitiveness. In a growing and resilient economy like Mindanao, it was most important of propelling the economy forward not only by providing income opportunities to the rapidly increasing workforce but also by promoting programs for workers’ welfare. These involved such areas as worker’s competency, productivity, work ethics and values, working conditions, OSH and remuneration. The institutionalization therefore of OSH practices was vital. But OSH services and protection must be extended beyond those in the formal sector and should also cover farmers and small businesses as well as the workers and families in the informal sector. The Summit was a very timely event to promote understanding of the linkages between OSH and productivity. This would undoubtedly help in improving the OSH services for all Mindanaoans.



ANNEXES

Poster Presentations

Development of Dust Respirators from Locally Available Materials

Mr. Bufford A. Ang¹, Engr. Lauro C. Canceran², Engr. Carlos M. Cortes³

¹Industrial Hygienist III, ²Senior Industrial Hygienist, ³Supervising Industrial Hygienist
Occupational Safety and Health Center

The use of personal protective equipment, such as dust respirators, proved to be one of the most convenient ways of protecting workers against inhalation of dusts. Due to financial constraints most employers provide their workers with locally available dust respirators made from improvised materials in their attempt to minimize worker's exposure to dust. This study developed filter materials that are most efficient with the lowest breathing resistance from locally available materials.

Methodology

Carded cotton filters having dust recovery efficiencies of not lower than 95% and inhalation resistance not exceeding 6 mm H₂O will be used as filtering materials for the prototype dust respirators. Pilon was used as the outer covering to protect the cotton fibers from disintegrating. Filter materials were evaluated by subjecting them to a known concentration of silica dust for determination of their efficiencies and breathing resistance.

The first part of the experiment utilized (10) carded cotton-pilon combinations weighing 80 mg each. The second part of the experiment utilized four (4) carded cotton-pilon combinations composed of one double sheet and three single sheets. The carded cotton samples were pressed at 4.5 tons. The samples were coded as A1 (Double Density Sheet), A2, B1 & B2 (Single Density sheets). Test results on the filtering efficiency and breathing resistance of the filter materials or combination of these filter materials were analyzed and evaluated.

Results

Breathing resistance met the Japanese Industrial Standard of 6 mm H₂O. However, the filtering efficiencies obtained were below the targeted 95%. Sample A1 (Double Density Sheet) had a filtering efficiency as high as 87.55%, but had a breathing resistance of 10.5 mm H₂O. The three single density sheets reached a filtering efficiencies ranging from 69.15% - 80.42%, with a breathing resistance ranging from 5–13 mm H₂O.

Conclusion and Recommendation

Even though the carded cotton filters did not meet the required 95% dust recovering efficiency, the filter materials can be used to protect the worker from being exposed to large non-toxic dusts and fibers, aqueous mists and nuisance odors. It is recommended for a continuing research to use finer cotton with smaller pore size as filter material to lower breathing resistance and to attain higher filtering efficiency.

Assessing Knowledge, Attitudes and Practices of Construction Workers & Supervisors/Managers on Occupational Safety and Health in Low, Medium and High Rise Constructions in Metro Manila

Safety Control Division

Occupational Safety and Health Center

Background

The construction industry undeniably is beset with a lot of problems on safety and health. Fatal accidents occur in a number of construction sites, most of which are preventable, if only there is awareness on safety and health rules and regulations, good safety and health attitudes and practices. While there are tripartite efforts to improve the status of safety and health in construction sites, these are traditionally training interventions and information campaign, based on the very basic assumption that there is a large gap in the knowledge and awareness of workers, supervisors and managers on the safety and health considerations in construction. Knowledge, of course is a big issue, but the unsafe acts and conditions that lead to accidents and injuries are not only a function of knowledge but also of prevailing attitudes and practices.

Objective

The significance of this study is to be able to provide a baseline on the current levels of KAP of workers and supervisors/ managers in construction sites, a valuable tool in the formulation of policies, strategies and interventions to better address the safety and health concerns.

Methods

This particular survey involved a total of 362 respondent workers and supervisors/managers in 17 construction sites in 5 areas in Metropolitan Manila. Seven small, 6 medium and 4 large construction sites were visited for the survey.

The study prioritized workers in the following types of work: steel works, masonry, carpentry, equipment operator. However in the course of the study, a significant number of laborers or utility personnel and other types of work (e. g. electricians, time keepers, etc.) were involved in the survey and focus group discussions.

Results

Relevant findings in the survey show that in relation to safety and health, generally, 70.0% to 90.3% of supervisors and workers regardless of type of work have fair level of knowledge. The majority of the supervisors/managers or 77.0% and equipment operators (51.6%) have generally good attitudes on OSH, while the other groups of workers, ranging from 25.8% to 45.1%, have fair levels of attitudes. As to practices, most supervisors/managers (62.3%) and workers (51.7% to 58.8%) have good practices, except masonry workers and those belonging to the others group where only 42.9% and 44.0%, respectively, have good practices.

The qualitative part of the study through the focus group discussions (FGDs) showed that the level of knowledge of the supervisors/managers and the different groups of workers leave so much to be desired. Most supervisors are not aware of existing safety and health standards. Only a few have heard about the DOLE Department Order No. 13: Guidelines Governing Safety and Health in the Construction Industry.

Recommendations

The findings of the study would provide good inputs to both government and private organizations in modifying occupational safety and health policies and programs and developing new ones to improve the overall status of safety and health in the constructions sites. More particularly, the results of the study could give better insights to the Department of Labor and Employment in carrying out the provisions of the Department Order No. 13.

Specific agencies within and outside the DOLE should review their existing programs and interventions and consider how the findings of the study could be incorporated in their efforts. The Occupational Safety and Health Center which is tasked, among others, to perform researchers and conduct trainings could review the curriculum of their construction safety training and employ approaches that could also touch on good examples of attitudes and practices. This process can improve the links between knowledge, attitudes and practices, which is the better set-up in improving OSH in construction sites. Follow through activities can further improvement actions after the training, resulting to better applications of the learnings gained.

Drug-Free Workplace Policies and Programs: Database 2003 – 2005

Dr. Ronaldo M. Fajardo and Dr. Dulce P. Estrella-Gust

¹Occupational Health Officer; ²Executive Director
Occupational Safety and Health Center

Background

Under the Republic Act 9165 (The Comprehensive Dangerous Drugs Act of 2002), the workplace has been identified as an important approach towards a drug-free Philippines. Pursuant to the provisions of RA 9165 and Department of Labor and Employment Department Order 53-03 (**Guidelines for A Drug-Free Workplace Program in the Private Sector**), DOLE continues to implement and supplement the activities initiated since the passage of the Law. The guidelines serve as a basis for the formulation and implementation of company policies in private companies. Following the issuance of the Guidelines, the DOLE, through the OSHC and the Regional Offices, has been continuously building capabilities to help companies comply with this DO.

Objective

The survey was conducted to assess the responses, programs and activities being done by the private and public sector in providing a drug-free workplace.

Methodology

Self-assessment survey forms were distributed through the Employers Confederation of the Philippines and also given to companies/participants to Health Control Division trainings.

Results

From January 2003 to December 2005, one hundred sixty-one (161) companies and organizations have responded to the questionnaire. Out of this 161, 146 or 91% belonged to the private sector. Forty-eight percent (48%) are classified as large-scale industries while the rest comprise small and medium-sized enterprises. Out of the 161 companies that have responded, 53 or 48% already have workplace policies. Of those who replied that they do not have workplace policies yet, 30% cited that workplace drug issue is not a priority of the company while 21% replied that they are in the process of making the policy.

DRUG-FREE WORKPLACE POLICIES AND PROGRAMS
Database 2003-2005
Occupational Safety and Health Center

BACKGROUND
Republic Act 9165 (The Comprehensive Dangerous Drugs Act of 2002)
DOLE Department Order (DO) 53-03 or the Guidelines for A Drug-Free Workplace Program in the Private Sector: Formulation and implementation of company policy and program in private companies.

OBJECTIVE
The survey was conducted to assess the responses, programs and activities by the private and public sector in providing a drug-free workplace.

METHODOLOGY
Self-assessment survey forms were distributed to companies.

RESULTS AND DISCUSSION

Type of Organization/Orientation

Organization/Orientation	Percentage
Government - (DOs) -	57%
Private - HE	43%

Frequency Distribution of Respondents who have Workplace Policy

Company Size	Percentage
Small (16 to 50 workers)	40%
Medium (51 to 200 workers)	48%
Large (201 and up)	50%

Components of the policy being implemented by companies

- Advocacy, education and training (41%)
- Drug testing (40%)
- Treatment and rehabilitation is implemented only by 20% of the respondents.
- 20% of the respondents extends their preventive activities to the families of workers
- Most of the companies (58%) let the workers shoulder the expenses of treatment and rehabilitation

Assessment Team

- 28% (30) of the companies have organized an Assessment Team
- 22 companies reported that their Assessment Team underwent training

RECOMMENDATIONS:

- Strengthen the DOLEs implementation of the Drug-free Workplace Policy and Program
- Strengthen the capability of the Regional Offices
- Evaluate the implementation of the DO 53-03 at the company level

LABORY KONTRA DRUGA 2004
KAPAG-ONG KAMAG-ONG
KAPAG-ONG KAMAG-ONG

The most commonly implemented components of drug-free workplace programs are advocacy, education and training (41%) and drug testing (40%). Treatment and rehabilitation is implemented only by 25% of the respondents. Thirty (30) companies have organized an Assessment Team. Of these 30 companies, 22 or 73% replied that the Team had undergone the necessary training.

Twenty-three percent (23%) of the responding companies include drug testing in their annual medical examination while only 11% implement unannounced drug testing. Eight companies dismiss or terminate workers found positive for drug use the first time. For repeat offenders, 32 companies said that their sanction is dismissal or termination from employment.

Recommendations

The results showed that the general inconsistencies in the implementation of drug-free workplace policies and programs as shown by the results particularly in the sanctions for first-time offenders. The relatively lower compliance rate of small and medium-scale enterprises should be also noted.

There is an urgent need to strengthen further DOLE's programs and activities to increase the number of workplaces addressed by preventive programs of partners other than the DOLE. The Drug-Free Workplace Program will have to consolidate efforts to make better use of more media dissemination, as well as build a stronger base for training and evaluate policies and programs of the implementation of the DO 53-03.

Occupational Safety and Health Guidelines for Call Centers in the Philippines

**Dr. Maria Beatriz G. Villanueva¹, Dr. Ma. Teresita S. Cucueco²
and Dr. Dulce P. Estrella-Gust³**

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Background

Based on the 2005 data of the Bureau of Investments, there are about 105 call centers in the country employing 112,000 workers. Revenues from the industry amounted to more than \$1 billion. Compare these to the 2000 figures when the industry employed only around 2,000 workers and brought in just over \$20 million in revenues. These employment and revenue figures attest to the Philippines' global position as the emerging call center hub in Asia.

The industry, however, is beleaguered by high staff turnover rate. Concern over safety and health conditions at work is among the major reasons workers leave their jobs in call centers. To respond to the safety and health issues in the call center industry, the Guidelines was drafted for use by both workers and employers. The Guidelines present the fundamental health and safety principles and the preventive measures needed to deal with these issues.

Occupational Safety and Health Issues in Call Centers in the Philippines

In 2001, the Occupational Safety and Health Center examined the OSH conditions in call centers in the country. The goal was to gain a broad view of working conditions and employee health and safety at a time when little information was available on how call center work affects employees' health and safety and no work standards exist even in developed countries for call center workers.

The study characterized the working conditions as disparate in terms of the tasks involved, nature of work organization, performance quotas and requirements, type of clients, individual and psychosocial factors, among others. Common health and safety concerns identified include computer-related health disorders, specifically, work-related musculoskeletal and eye disorders; hearing and voice problems linked to telephone use; health issues related to prolonged night work; and stress at work.

Essential Features of the Guidelines

The Guidelines outline the crucial components of a good occupational safety and health program, and delve into the specifics of the recommendations targeting the OSH concerns in call centers. The major components of an OSH Program discussed in the draft document are the following: Employer's Obligations; Employees' Involvement; Worksite Analysis; Hazard Prevention and Control; Monitoring and Evaluation of Policy and Program; and Regulatory Compliance.

The Guidelines recommend an initial assessment of working conditions to identify workers at risk of developing work-related disorders. Risk assessment focuses on the important elements of the work system, namely, physical environment, workstation, job organization and individual and psychosocial factors. Key questions are posted at the end of each section to check if action is needed to improve the workplace or work practices.

Practical preventive measures are discussed under the following sections: Health and Safety Tips for Computer Use; Preventing Injuries to the Ears; Voice Care; Addressing OSH Issues associated with Night Work; and Managing Stress at Work.

Conclusion

The drafted Guidelines seek to improve working conditions in existing and prospective new call centers by providing advice on health and safety issues specific to call centers. It also seeks to address OSH problems in call centers at an early stage by assisting employers, employees and other stakeholders to develop appropriate and adequate work policies and programs that will promote and safeguard the well-being of workers.

Occupational Safety and Health in Hotels and Restaurants: A Preliminary Survey

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¹Occupational Health Officer; ²Executive Director; ³Division Chief
Occupational Safety and Health Center

Background

In the Occupational Injuries Survey of 2000, the hotel and restaurant industry figured second among the list of industries that reported injuries and illnesses. The nature of tasks that workers carry out, the working conditions and the hazards that emanate from the conditions, are rather specific. Moreover, the industry operates for twenty-four hours, and workers are burdened by working in shifts that put them at risk to various work-related problems. There is a need to understand and analyze the OSH culture of the industry as a basis for providing guideline for improvement and in the prevention and control of work-related injuries and accidents.

Objective

This survey determined the existing occupational safety and health (OSH) practices of five star hotels specifically with the purpose of developing a technical guideline on OSH in the industry.

Methodology

This survey is descriptive and purposely focused on selected five star and first class hotels in the country to find out how these large businesses practice OSH. The survey was in two parts; a focus group discussion was conducted among managers, human resource practitioners and school administrators of hotels and restaurants, to analyze the extent of health and safety status of this industry. The second phase made use of a structured questionnaire addressed to program enforcers and implementers of the participating establishments. It elicited information on: health, safety policy and programs, safe work procedures, education and training for workers, handling of hazardous substances, manual handling of materials and equipment. Other information obtained

Occupational Health and Safety (OSH) in Hotels and Restaurants

Occupational Safety and Health Center
Department of Labor and Employment

Background

- The Occupational Injuries Survey of 2000 reported the industry 2nd among those that reported having illnesses and injuries.



Objective

To determine the existing OSH status of selected five star hotels specifically with the purpose of developing a technical guideline of OSH for the industry.

Methodology

- Descriptive and purposive
- Survey was in two parts:
 - Focus group discussion
 - Structured questionnaire



Results

- Workers' Profile:
 - mostly women and with specific gender concerns
 - majority are young and has yet to recognize importance of OSH practices
- Workers are exposed to:
 - stress due to time involved in the delivery of their services
 - they have unusual working hours, physical and ergonomic hazards are varied

- Workers experience violence from clients, co-workers and supervisors
- Specific areas considered high risk for accidents
 - Kitchen, laundry area, housekeeping
- Prevalent accidents and illnesses mentioned
 - Burns & scalds, cuts, sprains and strains; mostly musculoskeletal complaints



- There is limited knowledge on OSH concepts
- Inadequate inclusion in the curricula of schools offering courses in the hotel and restaurant business

Recommendations

- There is a need for an improved school curricula
- Improved enforcement by concerned agencies, for hotels and restaurants to implement OSH policies and have comprehensive OSH programs



was on emerging problems in the workplace such as violence, drugs and alcohol, infection control and HIV/ AIDS, and accident investigation. It covered the different sections of hotels namely: front desk office, accommodations, housekeeping, food and beverage, purchasing and storage and security services.

Results

The industry has specific areas considered high risk for accidents: these include the kitchen, laundry area and housekeeping. Prevalent accidents and illnesses mentioned were burns and scalds, cuts, strains/ sprains, and other musculoskeletal complaints. Workers particularly those in the accommodation, kitchen and housekeeping services are at most risk from violence, from clients, co-workers and supervisors. Their work involves extreme pressure due to time, unusual working hours and the presence of physical and ergonomic hazards. In addition, the majority of workers is young and has yet to recognize safety and health prevention. Women workers also predominate and their specific gender concerns such as stress and other psychosocial problems have to be addressed. Workers in the industry have limited understanding on concepts of OSH because of its inadequate inclusion in the curricula of schools offering hotel and restaurant subjects. Topics on safety and health in schools are mostly focused on public safety, food safety and sanitation. In general the survey showed that the respondent establishments do have OSH policy and programs, however, the policies and programs are not well coordinated and need to be integrated in a comprehensive approach. Training, education, and information programs are often focused on work and emergency procedures. Safety concerns that are prioritized are limited to specific matters such as loss prevention, fire and bomb safety procedures.

Summary and Recommendation/s

Accidents and illnesses in the hotel and restaurant industry affect primarily the workers, their clients and the establishment itself. To build up a culture of OSH and promote workers well being and prevent occupational accidents and illnesses, workers and employers shall commit to practice safety and health in all areas. The outcome of the survey may suggest that even among first class and five star hotels; there is a need to establish a comprehensive health and safety policy and programs. The structured questionnaire is developed to take the form of a guideline that can be used in improving policies and programs on OSH in the industry.

SOLVE: The Philippine Experience

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¹Executive Director; ²Senior Occupational Health Officer, OSHC

SOLVE

(Stress, Alcohol and Drugs, Violence, HIV / AIDS and Tobacco)
A Training Course of the Occupational Safety and Health Center

Overview

Stress, Drugs and Alcohol, Violence, HIV / AIDS, and Tobacco (SOLVE) are major threats to workers, co-workers, and enterprise performance. Taken together they can be responsible for a great number of work accidents and diseases leading to incapacity, illness and death. These problems have considerable impact on productivity, and costs of the enterprise.

Course Objectives

AT the completion of the course, the participants will have:

- acquired knowledge and skills needed to integrate all the five components of SOLVE into a comprehensive corporate policy, and
- drafted a company's program of action to alleviate SOLVE issues and problems in their workplace.

Methodology

Lectures and discussions, case studies, audio-visual presentations, and workshops / simulation exercises.



Target Clients

Program planners and implementors, members of OSH committees, and employers and workers group

Course Duration

4 days

Course Outline

- Stress at Work
- Alcohol and Drugs at Work
- Violence at Work
- Tobacco at Work
- Interventions and Response



S O L V E

STRESS TOBACCO ALCOHOL & DRUGS HIV / AIDS VIOLENCE

Background

Psychosocial issues such as stress, alcohol and drugs, violence (both physical and psychological), HIV/ AIDS and tobacco are the emerging health-related problems at work. Workplace studies show that stress, violence, drinking, smoking and illicit drug use are correlated. Studies have revealed that 32% of 586 nurses identified themselves as victims of workplace violence, other psychosocial stressors in their work included shift rotation and short staffing. In the Philippines, the rehabilitation facility-based survey of the Dangerous Drugs Board I 2004 showed that workers or those employed accounted for 29.5% of dependents.

Discussion

To address these problems, the Occupational Safety and Health Center adapted the ILO-SOLVE training course for workers. SOLVE is an interactive training course that aims to address specific causes of health-related problems in the industry that affects productivity such as stress, alcohol and drugs, violence (both physical and psychological), HIV / AIDS and tobacco by enabling enterprises to integrate these psychosocial issues into their overall occupational safety and health policy and establish a framework for preventive action. The outcome can be seen as a constructive financial and social gain which grows, sustains, and adapts itself to changing needs of the establishment.

The OSHC conducted two Policy-Level SOLVE Course from 2003 to 2004. Participants were from different industries and occupations. Table 1 shows that among 40 participants, 32.5% were from the manufacturing industry and 27.5 % were from the education industry. In both courses, participants developed an integrated policy to

address these emerging workplace concerns. Participants drafted re-entry plans as their road map in the implementation of their individual SOLVE programs.

Recommendations

The SOLVE trainings had built an open attitude towards the subject and a sufficient knowledge base so that the participant can apply knowledge learned. To further realize the impact of the program, the different psychosocial issues have to be examined from different perspectives that will involve not only the enterprise but the community and the worker's family as well. The OSHC will continue in promoting this course and in partnership with the ILO will expand the future SOLVE courses for Managing Directors, Workers and Micro-Solve courses specific for industries.

**Turn Down the Volume Please:
Noise Levels in Commercial and Industrial Establishments (2003 – 2004)**

Mr. Bufford A. Ang

Industrial Hygienist III, Occupational Safety and Health Center

Objectives

This research investigated and compared the noise levels prevailing in commercial and industrial establishments. It also identified the industries and work processes with high noise levels.

Methodology

Noise levels obtained from commercial and industrial establishments that availed of the Work Environment Measurement from year 2003 – 2004 were evaluated and compared. Work processes having the highest noise levels in each of the establishment were identified. Recommendations given to each of the industry were noted. Noise levels gathered from five (5) disco establishments in Metro Manila last September 2003 were also mentioned.

Results of the Study

Of the one hundred forty three (143) companies that requested for noise assessment in their work areas from January 2003 to July 2004, 95.8% were industrial and 4.2% were commercial in nature. Forty six percent (46%) of the total number of companies have noisy work areas exceeding the Permissible Noise Exposure (PNE) Level of 90 dB (A) for an eight-hour working exposure. Eighty three percent (83%) of the commercial establishments assessed for noise in their work areas exceeded the PNE Level.

Five (5) discos in Metro Manila were also assessed for noise exposure of workers and patrons. Results showed that the noise levels at the bar and disc jockey stations, patrons' positions, dance floors, and the entrance doors of all disco houses visited exceeded the Permissible Noise Exposure Limit (PNEL) of 90 dB(A) for an eight-hour shift, based on the Occupational Safety & Health Standards (OSHS) of the Department of Labor & Employment (DOLE).

Conclusion and Recommendations

Measures should be taken to reduce noise to safe levels. Monitoring the effectiveness of these measures is also essential. These may include regular OSH auditing, periodic exposure assessment, engineering and administrative controls, audiometric evaluation and monitoring, use of hearing protectors, education and training, and record keeping.

Work Environment Measurement in the Public and Private Sectors

Engr. Nelia G. Granadillos

Chief, Environmental Control Division, Occupational Safety and Health Center

Objectives

The study aims to assess the working conditions in different industries through the conduct of WEM. It also aims to establish a database of work environment assessment of chemical and physical hazards and to determine the rate of compliance to Occupational Safety and Health Standards (OSHS), specifically Rule 1070.

Methodology

The data were gathered and reviewed from the individual company WEM reports conducted from Year 2003 to Year 2005. A database structure was developed to record the trends and conditions in the work environment by industry, size of establishments and regions. Evaluation and analysis of chemical and physical hazards was based on the Occupational Safety and Health Standards (OSHS) and the recommended Threshold Limit Values (TLVs) of American Conference of Governmental Industrial Hygienists (ACGIH).

Results

A total of 582 companies were assessed from Year 2003 to Year 2005. Of the total number of companies, eighty nine percent (89%) were from the private sector and eleven percent (11%) from the public sector. Forty two percent (42%) of the total number of companies were from Region 4A. More than half of the total number of companies assessed needs improvement on their working conditions for compliance to Rule 1077 of the OSHS. Results of analysis showed that the most common problems encountered were excessive noise, extreme temperature, inadequate illumination, and poor general ventilation conditions.

Exposure of workers to chemical substances was found to be within the TLV. Only 9% of the total areas measured failed the evaluation for exposure to chemical hazards which includes organic solvents, heavy metals, gases, acids, dust, asbestos and other chemicals. However, even at low levels of chemical exposure, precautionary measures in the handling of chemicals to reduce worker's exposure were recommended.

Conclusion and Recommendation

The industrial hygienist's approach thru WEM is the fundamental concept of providing all workers with a healthy working environment. The updating of the database of work environment assessment should be a continuing program to serve as basis in formulating policies and guidelines and to complement future studies and researches.

**1st Mindanao Summit on Occupational Safety and Health
May 24 – 25, 2006**

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PHOTO EXHIBIT ON OCCUPATIONAL SAFETY AND HEALTH
Occupational Safety and Health Center

This collection of photographs demonstrated the potential hazards and risk faced by workers in the following sectors and population:

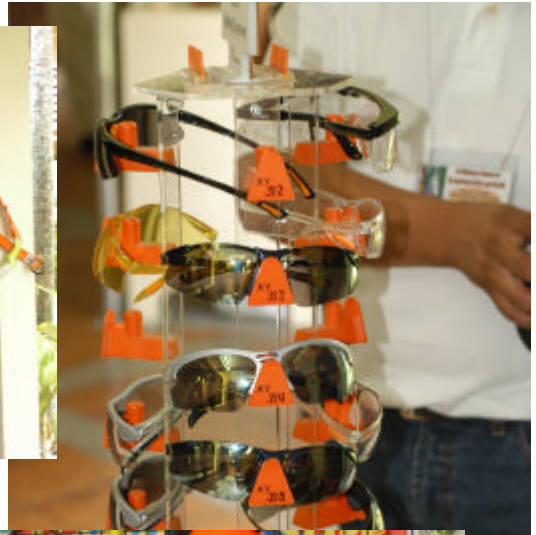
- ❖ Farming
- ❖ Construction
- ❖ Informal sector
- ❖ Child Labor; and
- ❖ Women workers



Photographs by Mr. Charlie Solo, Occupational Safety and Health Center

LIST OF EXHIBITORS

- 1. Proest Philippines, Inc.**
- 2. King's Industrial Safety Supply, Inc.**
- 3. Safety Center of the Philippines, Inc.**
- 4. Ultra-Seer, Inc.**
- 5. Unisafe Industrial Company**
- 6. Pan Pacific Industrial Sales Company, Inc.**
- 7. Fairex Trading (Asia) Corp.**
- 8. Occupational Safety and Health Center (OSHC-DOLE)**



ALL ABOUT OSHC



The Occupational Safety and Health Center (OSHC) was established as the nationally recognized authority on work safety and health research, training, information and technical expertise. As such, it conducts trainings (both basic and specialized), information campaigns; researches on the relationship between work and occupational diseases; and technical services such as Work Environment Measurement (WEM), Biological Monitoring, Safety Audits, as well as Development and Testing of Personal Protective Equipment (PPE). It pursues partnership with the public and private sectors through responsive and sustainable OSH programs and policies. It aims to increase productivity through better working environment, decrease in manpower and economic losses caused by occupational accidents, injuries and diseases, and to improve welfare of workers and their families.

It is also the main implementor and coordinator of the Zero Accident Program (ZAP), the Department of Labor and Employment's focal program on work safety and health.

ZAP has the following components: advocacy; capability-building; voluntary compliance; network linkages; productivity link-up; and the biennial selection of the Gawad Kaligtasan at Kalusugan (GKK) winners. One of the aims of the 1st Mindanao Summit on OSH is the strengthening of the ZAP



