Abstracts

FPH OH teams are required to provide direction and support in addressing community health issues and corporate health social responsibility programs, expanding scope to include occupational, environmental, and public health. This paper describes how this was achieved.

Methods To institutionalise OH in the Environment, Safety, and Health Management System (ESH MS) the following were implemented:

- Developed a set of mandatory OH standards including requiring companies to strategically address environmental health and CSR health programs;
- Established OH Management System;
- Implemented health guidelines and procedures; and
- Implemented OH competency development.

Result The FPH Corporate Health function was established providing technical support, guidance, and services in the development, implementation, monitoring, and evaluation of all health initiatives including a ‘one-stop-shop’ for all health needs.

Discussion Philippine OH focuses on medical services, reactive in approach, and programs are not risk based. Corporate culture and perspective needs to change to take on a proactive and risk based approach. Health programs needs to be simplified, standardised, and made fit-for-purpose. The OH management system of FPH has addressed this through organisational development, engagement of stakeholders, and managing health just like any other business.

295 DEVELOPING OCCUPATIONAL HEALTH BEYOND COMPLIANCE

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Introduction Monitoring and development of occupational health in a large multinational conglomerate is always a demanding task in view of challenges like diverse nature of manufacturing processes, multiple geographies and its legal structure, diverse social and cultural background, different level of awareness etc. Aditya Birla group is 41 billion USD conglomerate having footprint in 12 different businesses across more than 34 countries. Driving occupational health with standardisation of practices across such a large organisation warrants unique approach and intervention.

Methods At Aditya Birla Group, Occupational health has been adopted as fundamental element of overall inclusive approach for sustainable business practices. The framework is created incorporating international standards beyond local legal requirements applicable to all businesses/geographies and self-assessment process has been adopted to identify current status and gaps. This has in turn resulted in roadmap to bridge these gaps.

Result Over 90 different sites of the group have completed self-assessment questionnaire (SAQs), current status and gaps were identified to work up on. Awareness on required aspects of occupational health has been provided based on gaps identified and best practices within the groups were shared. This has resulted into overall improvement of occupational health status across the group which is measurable in terms of self-assessment score.

Discussion Management of occupational health across geographies at multiple sites is always a challenge. A focused and unique approach of self-assessment questionnaire (SAQ) along with gap identification has been found very useful to monitor and support development of occupational health status across large organisation while keeping ownership with local management.

300 OCULAR MORBIDITY AMONG WELDERS IN THE SHIPBUILDING INDUSTRY, GOA

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Introduction It is known that the shipbuilding industry relies heavily on welding. While welding has conventionally been known to predispose welders to ocular morbidity (OM), organised sector requires implementation of stringent workplace safety rules. Are welders still predisposed to OM by virtue of their occupation?

Methods This cross-sectional study involved 552 workers; 276 welders and 276 nonwelders. An interviewer-administered questionnaire was followed by ocular examination and testing by means of a Titmus Vision Tester.

Result The prevalence of OM among the two study groups comparable in age and duration of employment (DOE), was found to be significantly higher among welders with odds ratio (OR) of 1.75 (95% confidence interval CI: 1.45 to 2.11)) despite regular PPE (personal protective equipment) use. Arc eye was limited to welders. Prevalence of cataract was greater in welders (OR= 3.60, 95% CI: 2.27 to 5.70) and was associated with a younger age and a shorter DOE compared to nonwelders. There were more cases of diminished colour vision among the welders (OR=4.09, 95% CI: 1.63 to 10.28) and they did not differ significantly from the nonwelders with the same ocular morbidity in terms of mean age and DOE. Visual field defects, pterygium and myopia were more prevalent among welders; however statistical significance was weak.

Discussion Welders have a greater burden of ocular morbidity compared to nonwelders despite regular PPE use. Further investigation to identify underline issues to enable amendment of workplace regulation, screening criteria and worker education material and propose access to evidence based recommendation tailor-made to the actual workplace situation.

320 ERGONOMIC ASSESSMENT OF ARC WELDING JOB IN CONSTRUCTION INDUSTRY

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Introduction Among the various process of welding metal arc welding is the most common, versatile and inexpensive one and account for over 50% of the total welding in advanced countries and over 80% in India. A large number of workforce around the world earn their livelihood in this occupation. Welders have no fixed work station in developing world.
irrespective of industries. They are forced to work in cramped space assuming awkward posture that burden to cardio-respiratory system.

**Methods** This study was performed on worker (n=31) engaged in welding job in different construction industry throughout West Bengal. The task was examined in the light of the observed physiological parameters and postural load in workers during their performances. The physical strain in terms of cardio-acceleration and energy cost was examined by Heart Rate Monitor. Ergonomic assessment tool REBA (Rapid Entire Body Assessment) was used to assess the working posture and risk level of postural load. Different thermal factors like Dry bulb temperature(DB), Wet bulb temperature(WB), Globe temperature(GT), Relative humidity(RH), Air velocity (AV), Wet bulb globe temperature(WBGT) was evaluated.

**Result** Cardio-acceleration and energy cost was found to be moderately heavy. Risk level of postural load was found to be 4–9 category: DB (32.27°C-35.7°C), WB (23.92°C–26.5°C), GT (36.75°C-40.73°C), RH (43.27%–49.9%), AV (15.56 meter/minute-26.67 meter/minute), WBGT (27.23°C-30.2°C) was found.

**Discussion** It was observed that the workers were suffering from huge amount of postural load and also encountered with radiant heat from work environment which turns the work more strenuous for them. It is urgently necessary to consider some interventions which may limit the environmental stress and postural load to increase the productivity of welders.

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**354 DIAGNOSIS, PREVENTION AND COMPENSATION OF OCCUPATIONAL DISEASES IN THE RUSSIAN FEDERATION**

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In the countries of EU simultaneously act several lists of occupational diseases (OD) (opened, closed, closed regulated). National list of OD in the Russian Federation (RF) is opened type. In common RF OD list is harmonised with ILO OD list (revised 2010) with some exceptions. For example, National OD list does not recognise work related diseases.

The dynamics of the number of cases of OD in the RF in 2011–2015 and OD level (per 100 thousand people) and their trends for 2016–2030 were studied compared to the level of OD in the EU countries-27. In 2011 the number of new cases of OD was 8923 (the population were 142.9 million people); in 2015r. the number of detected cases of occupational diseases was 7410 (the population were 146.3 million people). The level of OD was decreased from 6.24 (2011) up to 5.06 (2015) per 100 thousand people. The analysis of OD level shows that the number of detected cases of OD for the first time in the RF was significant (7–8 times) lower than in UN countries-27–40.07 per 100 thousand population (2014).

Structure of OD in RF shows than maximal part of OD are diseases caused by physical agents (48.85%), hearing impairment caused by noise and disease caused by vibration including. The another main ODs were: ODs caused by chemical agents as well as occupational respiratory and occupational skin diseases. There are absent post-traumatic stress disorders and dramatic low level of occupational cancer. Over 2002–2014, total of 498 cases of occupational cancer was registered, that is less than 0,3% of minimal expected number of cases.

This is connected with peculiarities of OD registration system and underestimation real level of OD. All this justifies the need of occupational diseases diagnosis, prevention and compensation system improving in the RF.

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**444 SYSTEMATIC OCCUPATIONAL HEALTH ENHANCEMENT LEVEL PROGRAMME – TOWARDS ACHIEVING OSH MASTER PLAN 2020 BY ENHANCING INDUSTRIAL HYGIENE IN MALAYSIA**

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**Introduction** Systematic Occupational Enhancement Level Programme (SoHELP) is a systematic intervention programme which focus to help industries in Malaysia to enhance industrial hygiene and occupational health standard in the workplaces and to meet the regulatory requirements on industrial hygiene related regulations. The development of this programme are based on the increasing trend on reported occupational diseases in Malaysia and relatively low compliance to industrial hygiene related regulations which industrial hygiene related regulations seems as difficult and costly to comply compare to industrial safety regulations. The basis of the programme are focusing on three (3) main occupational hazards which are mainly due to exposure to excessive noise, chemical and ergonomic risk factor at the workplace.

**Methods** The participation of the industries into this programme are voluntarily and they should have safety and health officer as person in charge to coordinate the programme at their workplace. The department has developed the module based on this three (3) main occupational hazard which the industries need to comply and implemented at their workplace with given time of 14 months from 1st April 2016 until 31st May 2017.

**Results** The programme have been successfully being implemented to 214 workplaces which involved 261 Occupational Safety and Health (OSH) Practitioner and 139,855 workers in Malaysia. The overall achievement and compliance based on implementation of the programme are 3.9/5.0 (78%).

**Conclusion** This programme has been included in the Occupational Safety and Health Master Plan 2016–2020 (OSH-MP 2020) for Malaysia and been part of national platform for strategic and synergistic cooperation between government, employers, OSH practitioners, and employees to enhance industrial hygiene and health standard in the workplaces and as part of preventive tools to reduce the numbers of occupational diseases at the workplace.

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**481 CANTEEN HYGIENE INDEX IN INDIANOIL**

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**Introduction** Organisations provides and maintains canteens at their offices and installations. Employees eat food in these canteens while they are in office. For maintaining good health, it is essential to have a well-balanced nutritious diet from these canteens.