

# HSE

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## **Preface**

Before Industrial Revolution was used from safety tools for doing works, after James Watt invented steam engine event a big jump in industry and in result of it big inventions were became around the world cause of developing of science and technology .Because of it were focused on safety and protection of laborer .In order to increasing safety and reducing perils in workshop were codified rules and were welcomed to it and that as we can mention management system ISO 14001, OHSAS 18001 and management system HSE.

In parallel of industry and production segments developing ,instruction and civil projects have attended with developing and progressing too.Changing in architect and building instruction , changinge in people style and living in high towers ,living in apartment building and in parallel of it ways developing,urban directions ,raods,tunnels and ...highlight role of safety and protection of human capitals.

In our country was focused lesser on health situation ,safety and environment survey.Whereas civil projects are counting one of the most dangerous industry due to near interaction with society and people and several people that involved in these projects,so that happen 35 percent of country accidents ,accordingly attention to safety, health matters and environment have so important and sensitivity and in recent years growing process deaths threaten serious danger for health segment.

The first thing can mention in contact with accident due to work that is this all us as a human with any natural properties and religion can't see other people death because of ignorance ,and other cases are direct costs and indirect costs that mention several followin:

- Cost and time for finding temporary situated injured person
- Damaging cost to material and equipment
- Cost for training and situated renewed laborer
- Medical costs and insurance from taskmaster

- Paying wage cost concern losing time to injured laborer
- mental costs to family and society and social worths

So all of mentioned cases force us to create a suitable management system for guarantee of health and surviving of laborers and create a safety place for work. Health ,safety and environment management system are collection of management methods that these coordinates all of sources ,processes and organization members in access direction to health high level ,work without accident and healthy environment.it is obvious use of this management system in executive civil projects and urban in a systematic template and under control can cause reducing results undesirable bodily ,environmental and extra costs due to payment compensation,treatment costs and wasting losing time .

This book is result continuous attempt in direction implementation HSE system in ENGINEERING AND CIVIL ORGANIZATION OF TEHRAN and collection of contractor ,as guidance in direction establishment and continuous improvement management system health ,safety and environment in 16 chapters and accordingly application instructions and concepts codified for contractors and taskmasters organization that they are looking establishment HSE unit in his (her)association or organization.Contractors help to taskmaster with implementation HSE system and applied instructions , application executive methods this book in our activities set to he (she)figure on of HSE system requirements () and during executive project he has ,accurate appropriate of health ,safety and environment system.

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Chapter 7:instructions of scaffold and work at height

Chapter 8:instructions of tunnel safety and work at closed places

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