

COUNTRY REPORT

Occupational Safety and Health -From Policy Development to Implementation Measures-

Presented at

JICA Online Training Program Knowledge Co-creation Program

13 September – October 25 2022

E k a S e t i y a N o v a

Kawah Putih Ciwidey, West Java

Sumber gambar : <https://merahputih.com/post/read/pulau-jawa-memberikan-pengalaman-berbeda-berwisata>

**Directorate of Occupational Safety and Health Development
Directorate General of Labour Inspection Development & OSH
Ministry of Manpower Republic of Indonesia**

I. INTRODUCTION



Demographics of Indonesia

- In the southeast Asia between the Pacific and Hindia Ocean
- Total Area 1.916.906,77 sq.km
- Consist of 17508 islands, known as the Indonesian Archipelago
- Consist of 34 provinces
- 30 governors and 360 districts
- Population more than 237 million

Back ground information from my facility

- Name : Eka Setiya Nova
- Occupation : Government employees
- Organization : Directorate of Occupational Safety and Health Development, Directorate General of Labour Inspection Development & OSH, Ministry of Manpower Republic of Indonesia
- Position : Industrial Hygiene and Hazardous Materials staff
- Work experience (years) in the field of industrial/occupational safety and health : from 2011-now (11 years)

CV Eka Setiya Nova S.Si., MT



Education

- primary school Negeri Mengger Girang Bandung
- first high school Negeri 11 Bandung
- Senior High School Negeri 8 Bandung
- Bachelor of Mathematics and Natural Sciences ITB
- Master of Planning Engineering ITB

Work experience

- Test Sampling and Work Environment Analyst:
 - Physical Factors, Chemical Factors, Biology, Ergonomics and Occupational Psychology
- Health Test Sampling
 - X-rays, Spirometry and Audiometry
- Test Sampling and Safety Analyst
 - NDT test
 - Helmet Test
 - Safety Harness Test
 - Shoe Test

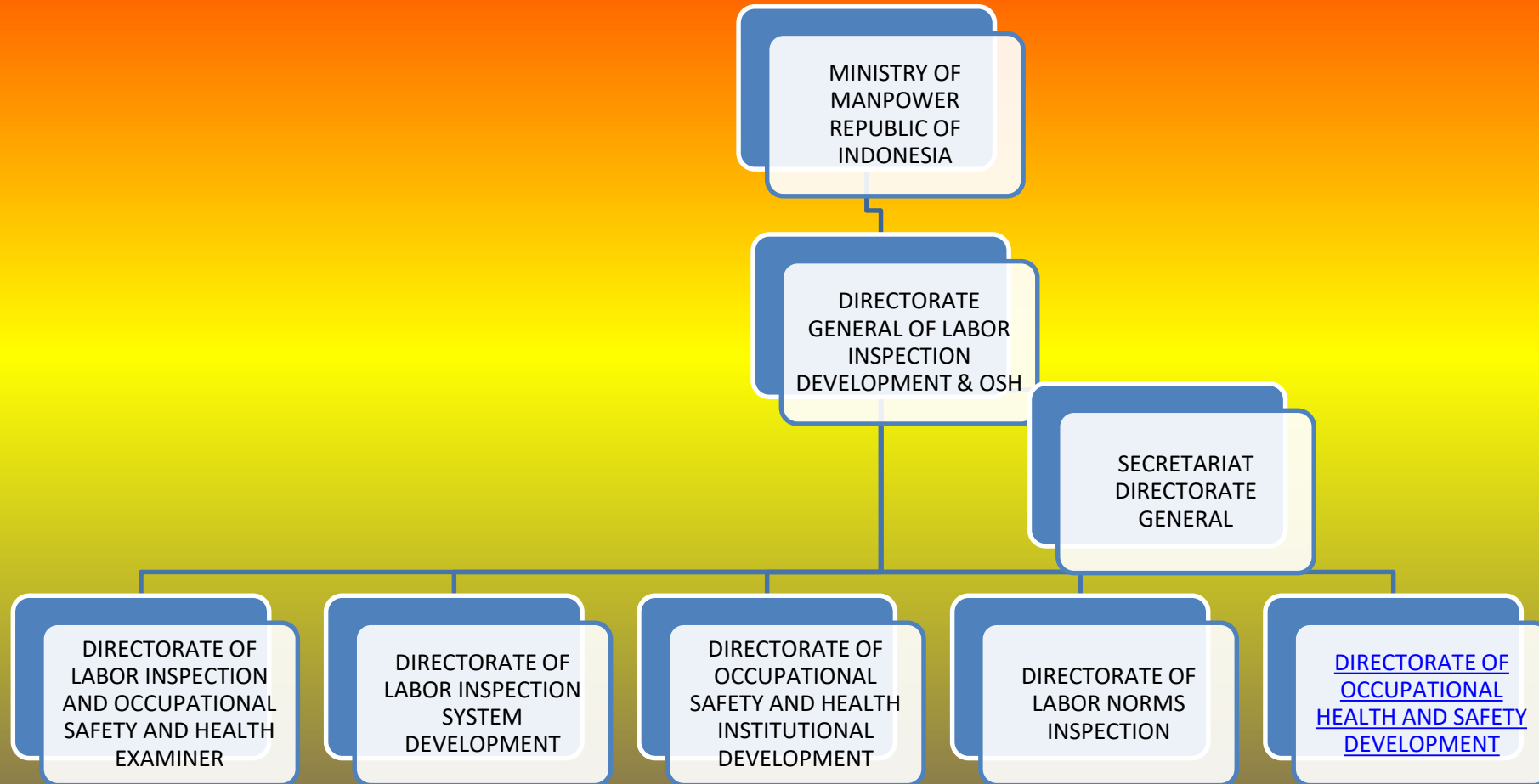


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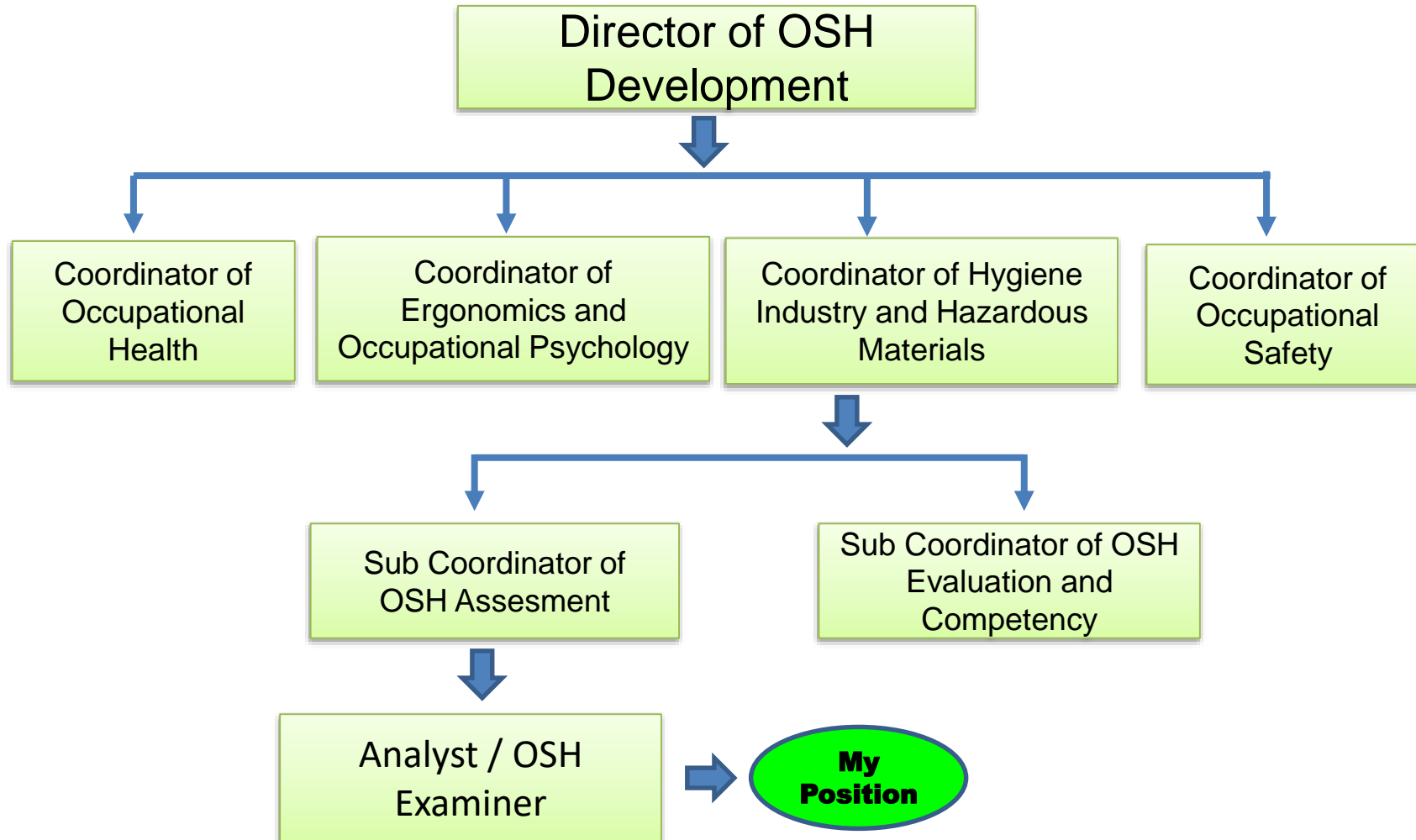
Experience and Organization

- SNI Vibrating Arm Conceptor
- Whole Body Vibration SNI Conceptor
- Functional K3 Examiner Young Expert
- Non-Permanent Lecturer at the Ministry of Manpower Polytechnic
- Secretariat of the Threshold Value Commission and the Commission 13-01 Making SNI at the Ministry of Manpower
- AHKKI Member
- Member of the Functional Association of OSH Examiners
- Staff for Testing and Evaluation of Corporate Hygiene Competence and Hazardous Materials (Now)

STRUCTURE AND ORGANIZATION OF MINISTRY OF MANPOWER



Structure and Organization of Directorate of Occupational Safety and Health Development



Sub Coordinator of OSH Assessment

Tasks performed are:

- Measure, analyze and evaluate occupational safety and health in companies by request or not, such as evaluating the working environment (chemists, physics and also biological monitoring)**
- Developed occupational safety and health standardization of chemical methods**

Analyst / OSH Examiner

The job description of analyst is :

- a. Analysis sample
- b. Calculation sample concentration
- c. Make a report of analysis result



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Sumber gambar : <https://www.spektrometer-analysatoren.at/apd-2000-pro>

Occurrence status of industrial/occupational accidents and occupational diseases

Workplace Accident in Periode 2016 -2021

Year	Accident	Compensation (IDR Billion)
2016	98.400	832
2017	123.000	972
2018	173.415	1.226
2019	182.835	1.577
2020	221.740	1.557
2021	234.370	1.790

Jamsostek Annual Report 2021

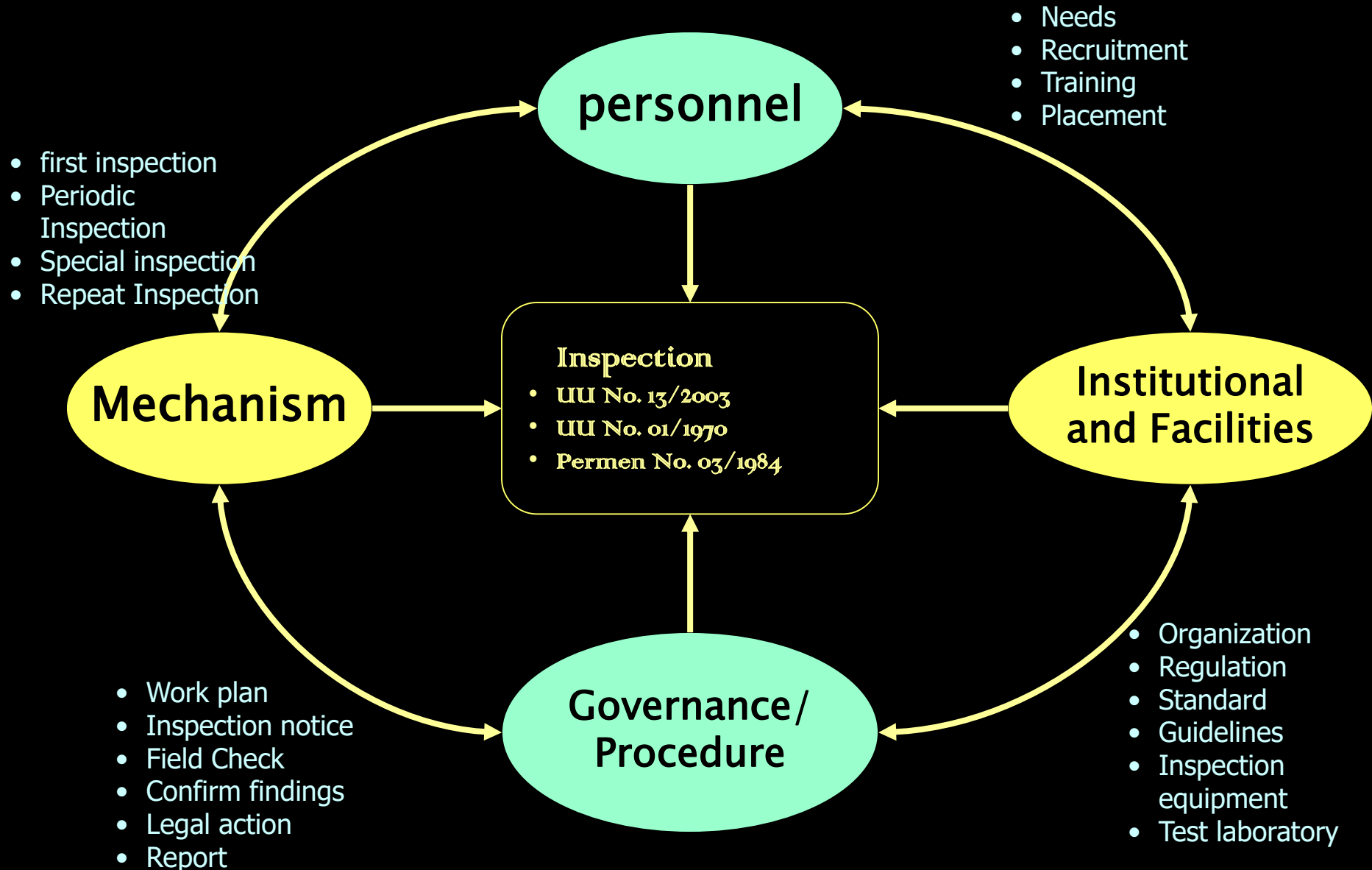
- The number and cost of occupational accidents in Indonesia have been increasing in recent years. The rising number of accidents reflect poor OSH awareness from the industry sectors and lack of OSH supervision by government. It is increasing because Indonesia is building several infrastructure project such as LRT, MRT and highway.
- Data collection methods from BPJS Website

Safety and Health related Laws and Regulations

The main OSH Legislation in Indonesia are :

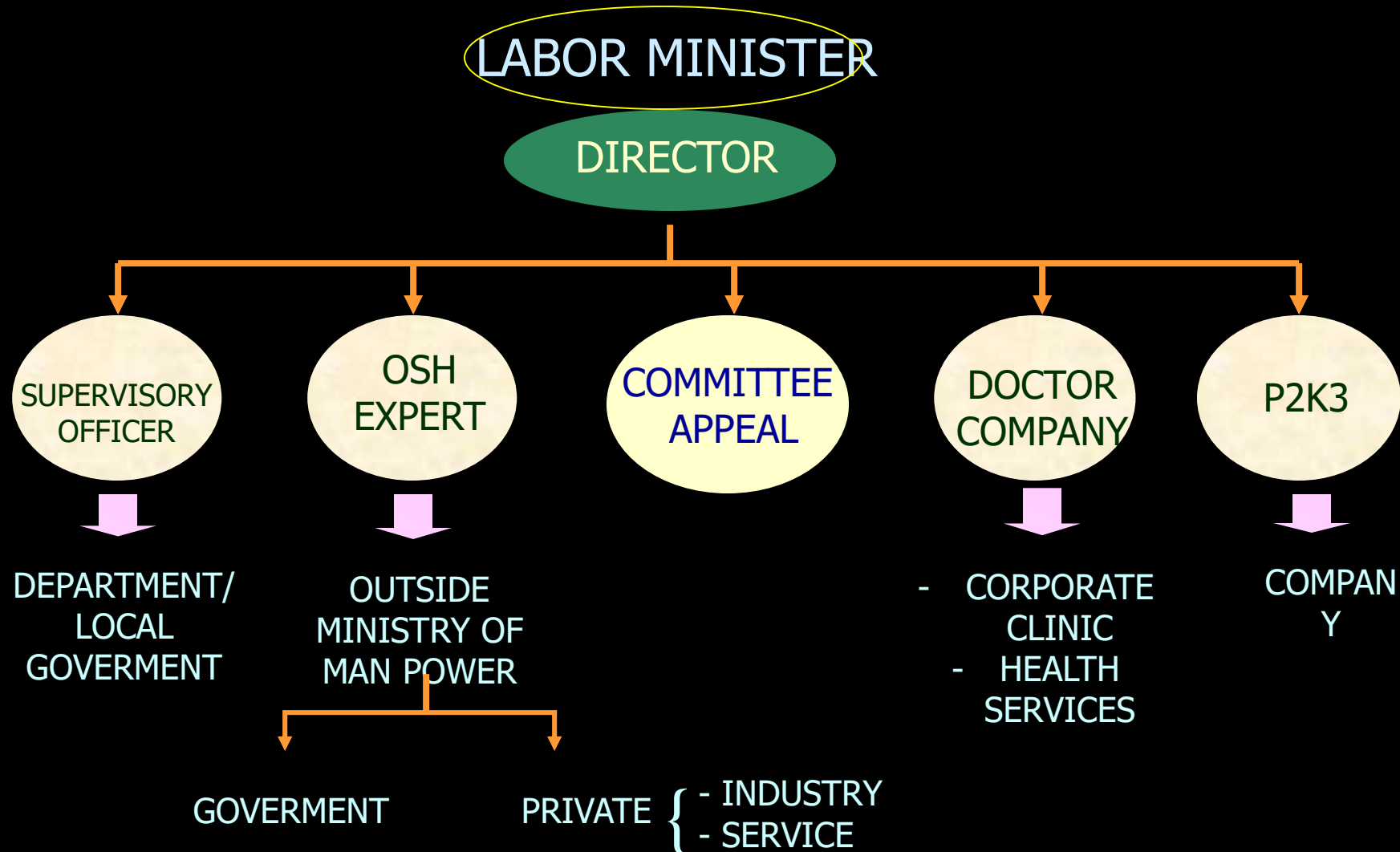
- Work Safety Act No. 1 of 1970**
- Indonesian Labor Law Government Act No. 13 / 2003**
- Health in the work place Legislation No 23/1992**
- Minister of Man Power Decree No 5 / 2018 on TLV for physical and chemical aspects in the workplace**

Labor Inspection System



OSH SUPERVISION

Bab IV Pasal 5



Workers' accident compensation insurance

GOVERNMENT → BPJS

PRIVATE → INSURANCE COMPANY

Safety equipment and facilities

Working Environment Monitoring

Using basic concept of industrial hygiene

- ❑ Physical : Noise, Lighting, Heat Stress, Vibration
- ❑ Chemical
 - Particulate : total dust, respirable dust
 - Gas non-organic compound : NO_2 , SO_2 , NH_3 , H_2S , CO , Oxidant
 - Gas organic compound : benzene, toluene, xylene
 - Metal fume : Pb , Cd , Cr

◎ BIOLOGICAL MONITORING

- MERCURY ANALYZER (Mercury)
- GRAPHITE FURNACE AAS, ICP-AES
(Metal in Blood → Pb, Cd)



Instruments



Instruments



Instruments



Analytical Balance



fume hood



Gas Chromatograph



Samples that can be analyzed by GC include:
content / concentration in ppm of chemical
compounds ...

1. Natural Gas Products
2. Solvent Purity
3. Fatty Acids
4. Pesticide Residue
5. Air Pollution
6. Alcohol
7. Steroids
8. Essential Oil
9. Flavor
10. Cannabis (marijuana)
11. CO



Anorganik kwantitatif

Gas Chromatograph MS



AAS

ATOMIC ABSORPTION SPECTROPHOTOMETER

Logam kimia (Pb. Mn.)/parameter



**ICP/AAS.... spectro (Inter coupled plasma) ketelitian > dari AAS
Logam/ beberapa parameter**



HPLC/High Performance Liquid Chromatography

biomonitoring

- widely used in the pharmaceutical industry and pesticides.



FTIR Spectro (Florde Transform Infra Red)

DETERMINING THE TYPE/CONTENTS OF QUALITATIVE & QUANTITATIVE CHEMICALS



LCMS (Liquid Chromatograph Mass Spectrophotometer)

JENIS SENYAWA KUANTITATIF & KUALITATIF (Prinsip kerja spt HPLC)



provide information about the molecular weight, structure, identity and quantity of certain sample components/gas N,H/hormones/pesticides etc.

PARTICLE SIZE ANALYZER



Mercury Analyzer



MIKROSKOP FASE KONTRAS

KWANTITATIF

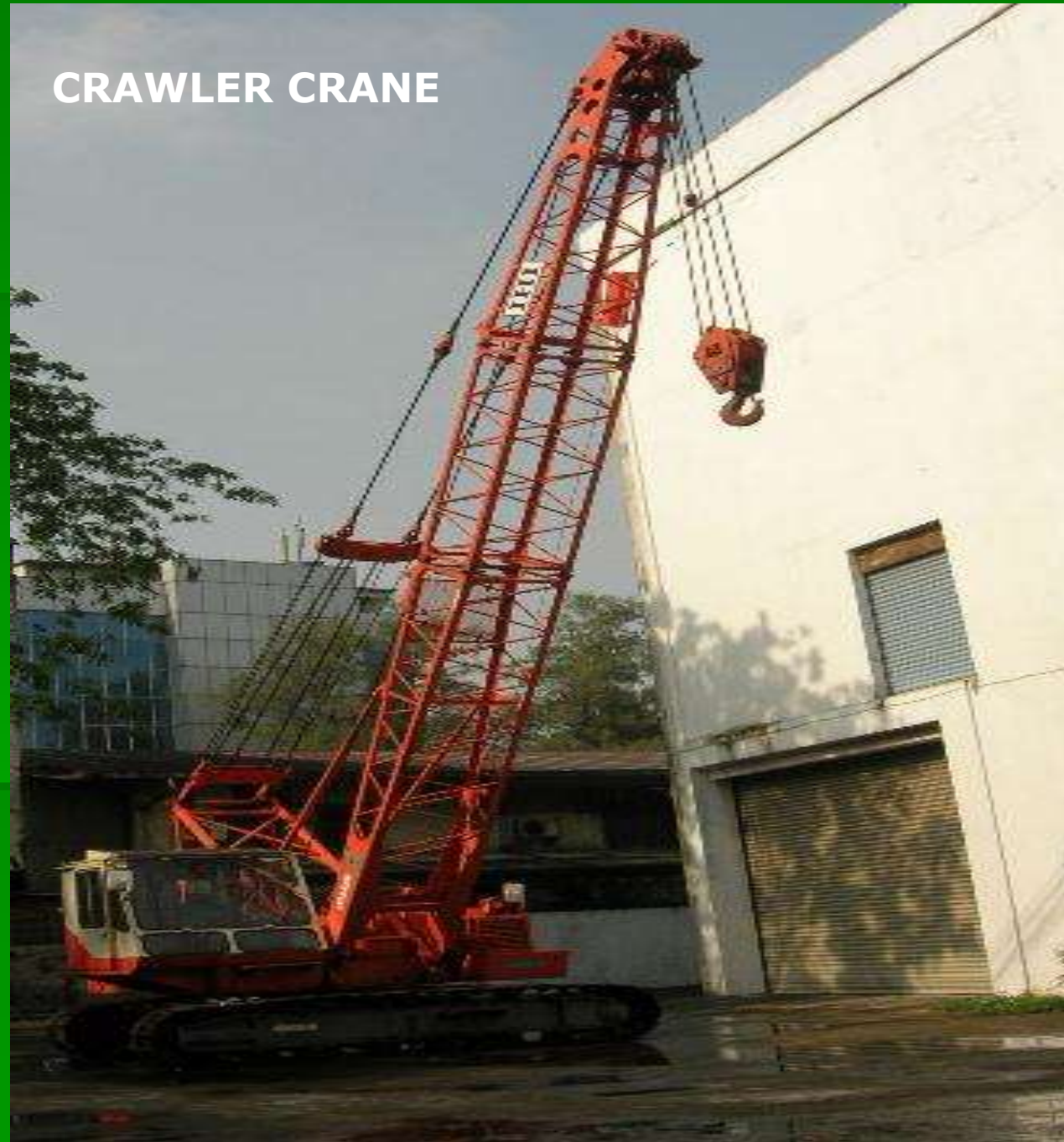


Tabletop microscope



kwalitatif

CRAWLER CRANE



MOBILE CRANE



OVER HEAD CRANE



14.02.2006

forklift



UJI SEPATU



UJI HELM



Internal And External Training/ Education Programs

- HIGIENE INDUSTRY
- HAZARDOUS MATERIAL
- FIRST AID
- CORPORATE HYGIENE AND HEALTH
- ERGONOMICS
- OCCUPATIONAL HEALTH
- WORK SAFETY

OSH Activities / Program

1. Arranging and perfecting norm, standard, guidance and criteria
2. Increasing quantity and quality for :
 - Safety Officer/ labor inspector / OSH Examiner
 - OSH expert, doctors, personel staff, technician & operator
 - Employee, employer manpower and community
 - Company/Institution
 - Means and infrastructure of OSH establishment & investigation
 - Management System
 - Evaluating and awarding
3. Increasing cooperation with institutions, association and related parties in implementing the establishment OSH
4. Increasing cooperation with national and international institutions in developing implementation of OSH

OSHMS AND RISK ASSESSMENT

- K3 Service System
- Web-based Occupational Safety And Health Risk Assessment System And Self-assessment

The screenshot displays the homepage of the TEMANK3 website, which is a web-based Occupational Safety and Health (OSH) service system. The page features a dark blue header with navigation links: BERANDA, FLOW CHART LAYANAN, INFO & ARTIKEL, DOKUMEN K3, HUBUNGI KAMI, and LOGIN. A central banner commemorates "Selamat Memperingati HARI K3 SEDUNIA 28 April 2021" (World Occupational Safety and Health Day) with images of a military officer and a construction worker. A weather widget for Jakarta shows a temperature of 30°C. Below the banner, the main content area is organized into a grid of service categories, each with an icon, title, description, and a "Kunjungi Layanan" (Visit Service) button:

- LEMBAGA K3**: Pendaftaran dan Data Lembaga K3 (JK/IDI, PJK3, Lembaga Audit)
- e-SMK3**: Layanan Audit dan Informasi SMK3
- e-PERSONEL K3**: Layanan Informasi Operator/Juru K3, Teknisi K3, Dokter Perusahaan, Paramedis, Ahli K3
- KELAS VIRTUAL**: Pembinaan K3 dan Ujian Pembinaan K3 secara Online
- PENGAWAS KETENAGAKERJAAN SPESIALIS K3**: Data Pengawas Ketenagakerjaan Spesialis K3 sesuai dengan bidangnya
- e-DATA OBJEK K3 DAN PEMERIKSAAN PENGUJIAN OBJEK K3**: Data Objek K3 dan Layanan Pemeriksaan dan Pengujian Objek K3
- e-LAPORAN KECELAKAAN KERJA DAN PENYAKIT AKIBAT KERJA**: Form elektronik Pelaporan Kecelakaan Kerja dan Penyakit Akibat Kerja
- e-LAPORAN MEDICAL CHECK UP**: Form elektronik Pelaporan Medical Check Up Pekerja

Health promotion and mental health

ACETIC ACID VISUAL INSPECTION FOR
FEMALE WORKERS

INTEGRATION OF THE COVID-19 COACHING
COMMITTEE PROGRAM IN THE WORKPLACE

Campaign/ Event/ National Convention/ Exhibition

GOVERNMENT OSH CAMPAIGN

- National OSH Month which held on 12 January – 12 February each year
- National OSH Award for ZERO ACCIDENT which enterprise each year
- provide appreciation and motivation for the company in providing protection for workers
- Working Environment Monitoring

Reference

- <https://www.bpjsketenagakerjaan.go.id/laporan-tahunan.html>
- Permen 05 tahun 2018 tentang K3 lingkungan kerja

M a j o r I n i t i a t i v e s O S H

S t r a t e g i e s 2 0 1 9 - 2 0 2 4

- 1. Improvement of the Labor Supervision System**
- 2. Institutional Improvement of Occupational Safety and Health**
- 3. Increased Examination of Labor Norms Occupational Safety and Health Testing**
- 4. Competency Improvement of Labor Inspectors and Occupational Safety and Health Examiners**

Challenges

- Indonesian Employers do not know about the importance of OSH;
- OSH Paradigm that OSH is only as the cost of project;
- Indonesian workers behavior who feel comfort without personal protective equipment;
- They believe that the accident is fate;
- Law enforcement still weak if OSH system is not applied



Challenges

- ❑ Indonesia is archipelago country, each part of Indonesia has different characteristic, so need more attention to organize qualified training of OSH in each region.
- ❑ Effective and efficient training system and method to reach all parties
- ❑ Indonesia and required of qualified instructor of OSH training.



Health Challenges

- **Start to improve health factor in OSH system management, because nowadays company still focus in safety.**
- **The most common occupational disease in Indonesia is lung diseases caused by exposure to dust particle such as silicosis, asbestosis and coal pneumoconiosis.**
- **Nowadays, HIV/AIDS become important issue because Indonesian worker susceptible to infected it.**



V. EFFORTS TO IMPROVE OSH

1. Increasing the number of :

- labor inspectors to conduct OSH supervision; personnel in companies (OSH Experts , Doctors);
- implementation of OSH (school, goverment institution);
- awareness of all stakeholder the importance of working environment monitoring and Biological monitoring to prevent of diseases & hazardous in the workplace

2. Focusing on law enforcement (regulation, osh inspection system);

3. Empowering OSH institution (Safety Committee)



**UTAMAKAN KESELAMATAN
DAN KESEHATAN KERJA**

EXPECTATION FOR THE PROGRAM AND HOW YOU WANT TO IMPROVE YOUR FACILITY AFTER THE PROGRAM

Improve Knowledge In The Field Of Occupational Safety And Health

We Can Make National Standards In The Field Of Occupational Safety And Health Based On Appropriate References To Be Applied In Indonesia.

Can Make Policies That Can Improve The Quality Of Occupational Safety And Health In Companies, Especially Occupational Safety And Health Policies That Do Not Yet Exist In Indonesia.



www.kemnaker.go.id

감사

gamsa

salamat

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Cảm ơn

Terima Kasih

баярлалаа

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