































## TPM – Total Productive Maintenance PENGHANTAR

TPM is not just a professional maintenance approach but also a cultural transformation programme.

- TPM concept , secara mendasar di-develop untuk menunjang concept: JIT – Just In Time
- >> You can't be lean if you don't have reliable equipment
- 2. TPM concept menerapkan: Total Participation from top management to shop floor
- TPM relevan dengan pendekatan: Root Cause Analysis and Elimination yang berkelanjutan (dinamis)
- 4. TPM memiliki proporsi fokus pada Prevention Philosophy:
  - Autonomous Maintenance
  - Visual Controls
  - Kaizen Approach
- TPM adalah pendekatan yang berbasis metric yang obyektif: to evaluate the effectiveness of your TPM improvements.

Seperti: OEE, MTBF, MTTR



#### **TPM KEY-Attitude**

"We are all responsible for our equipment."

We take care of our machines!



Management... Operators ... Maintenance... Engineer ... EVERYONE



### Training/Workshop/Tech.Discussion content and approach

- Pada tahap awal training/diskusi/workshop, memberikan penekanan khusus terkait hal-hal dasar terkait pengertian TPM serta MANFAAT KONKRIT dari penerapan/adopsi TPM
- **2. Dilanjutkan, penjelasan tentang:** *TPM definition, elements overview, tools* & expectations *Maintenance Score*
- 3. Continous TPM Improvemen Metric
- 4. Detail penjelasan: OEE definition & calculation
- 5. Bagaimana developing dan melakukan Set-up:
  - 1. Daily (TPM) Walk Around Checklist
  - 2. Pengukuran: TPM Progressive Level of Improvement
  - 3. OEE Goals dynamic & sustain
  - 4. TMP team





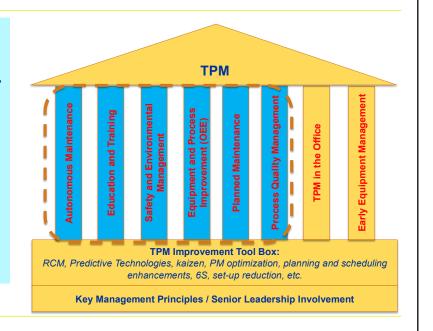




#### Tema/tool/elemen KUNCI dari TPM



- Autonomous Maintenance
- Visual Controls
- 6s
- Utilize Predictive Technologies Reliability Centered Maintenance (RCM) • Mistake Proofing
- Set-up Reduction
- Understanding your downtime losses (OEE, Loss Tree, etc)
  Return equipment and workplace to "ideal conditions"
- Workshops
- Kaizen...small continuous improvements

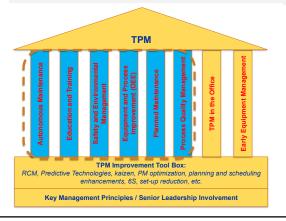


#### Langkah-langkah – GENERAL Penerapan TPM

TPM berfokus pada:

- 1. Zero Accidents
- 2. Zero Break-Downs
- 3. Zero Defects

Misi setiap pilar adalah mengurangi kerugian (dari aspek mikro) dengan tujuan akhir menghilangkan seluruh kerugian-kerugian (dari perspektif: Makro)



#### Langkah-langkah – DETAIL Penerapan TPM



- Establishes a common, comprehensive TPM approach
- Utilize existing mechanisms where applicable >> Visual Boards, Accountability Processes, Operation Mechanism, etc
- Utilize the right problem solving and improvement tools
- · Requires "systematic" approaches
- Equipment optimization requires total employee involvement from top to bottom
- Leverages best practices so we can all get better in quicker fashion
- Optimize what we have before adding new equipment (Maximize ROIC)
- · Ensure we are driving total organizational value









## Investasi

No	Jenis Investasi	Mandays	Jumlah Peserta	Investasi	
1	Training TPM	2	20	Rp	16.000.000

<sup>\*</sup>Investasi belum termasuk PPN 11% & makan siang konsultan

- Untuk biaya tersebut sudah termasuk Materi Training & E-certificate training untuk 20 peserta, Apabila ada penambahan peserta lebih dari 20 orang maka akan dikenaan biaya Rp
- Sudah termasuk biaya transportasi dan akomodasi Trainer

Term Pembayaran

Pembayaran 100% setelah pelaksanaan Training

# Persetujuan Proposal

PT SENTRAL TEHNOLOGI MANAGEMEN bersedia mengadakan kerjasama lebih lanjut mengenai masalah technical dan commercial sehubungan dengan proposal ini.

Jika Pihak PT.TUFFINDO NITTOKU AUTONEUM setuju dengan penawaran No.069/STM/ES/VI/24 Tanggal 25 November 2024 silahkan Bapak/Ibu menandatangani persetujuan ini dan mengembalikannya kepada kami. Kami akan mengirimkan perjanjian kontrak yang akan ditandatangani bersama.

Jakarta, 25 November 2024

Karawang,



Erna Susanti

PT SENTRAL TEHNOLOGI MANAGEMEN

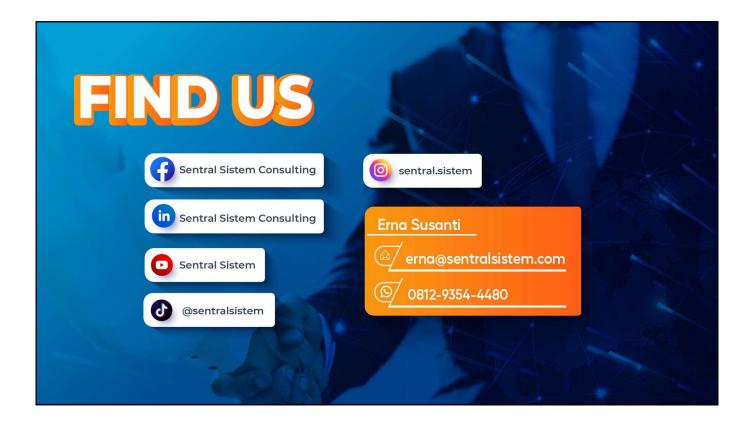
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