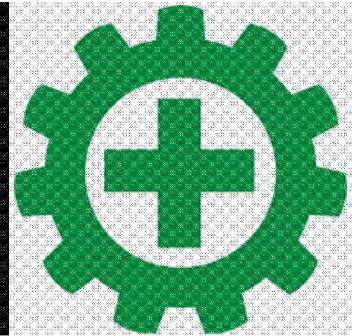


OCCUPATIONAL HEALTH & SAFETY – ELECTRICITY (K3 LISTRIK)



Working with electricity can be dangerous. Engineers, electricians, and other professionals work with electricity directly, including working on overhead lines, cable harnesses, and circuit assemblies. Others, such as office workers and sales people, work with electricity indirectly and may also be exposed to electrical hazards. Electricity has long been recognized as a serious workplace

hazard. The occupational health & safety of electricity (*Keselamatan & Kesehatan Kerja Listrik – K3 Listrik*) and its related requirements are designed to protect employees exposed to dangers such as electric shock, electrocution, fires, and explosions. It means to prevent electrical failures for related assets, operation and business interruption as well.

I. Meaning & Purpose of *K3 Listrik*

According to OHSAS 18001-2007: Occupational Health and Safety (K3) are all conditions and factors that can have an impact on occupational safety and health of workers and other people (contractors, suppliers, visitors and guests) in the workplace. While the danger of electricity is one of the factors that influence risk in the work environment such as electric shock, burns, and falling (fainting) to electrocution

(fatality) due to contact with electrical installation facilities. So that the *K3 Listrik* is all measures aimed at preventing the emergence of danger due to electricity to humans, ensuring the reliability and safety of electrical installations according to their utilization, and improving the environment which is safe and healthy so that productivity increases.

II. Legality of *K3 Listrik*

The Act (Undang-undang) Republic of Indonesia no. 1 of 1970 concerning "Work Safety":

- Scope in Article 2 paragraph 1 letter (q): Every place where electricity is generated, transmitted, divided, distributed and utilized.
- Objectives in Article 3 paragraph 1 letter (q): With legislation has been stipulated that work safety requirements to prevent exposures to dangerous electricity.

Minister of Manpower regulation (permenaker) no. 12 of 2015 concerning "OHS Electricity (*K3 Listrik*) at Workplace":

- Article 4 paragraphs 1 - 2: *K3 Listrik* covers planning, installation, utilization, change, maintenance, as well as inspection and testing; where it is carried out on the activities of generation, transmission, distribution, and utilization of electricity that operates with a voltage of > 50 V AC or > 120 V DC.
- Article 5 paragraphs 1 - 3: The scope of *K3 Listrik* activities to electrical installations, tools and equipments refers to the standards of

electricity sector and statutory provisions; where the intended standard of electricity includes SNI, international standards, and/or other standards that are determined by the Labor Inspector of *K3 Listrik* Specialist.

- Article 6 paragraphs 1 - 4: Planning, installation, change and maintenance are required to be handled by *K3 Listrik* Experts (*Ahli K3 Listrik*) and can be carried out by *K3 Listrik* Technicians (*Teknisi K3 Listrik*) at the company or at *PJK3*.
- Article 7: For companies that have electricity generation (and utilization) > 200 KVA, they must have a OHS Expert in Electricity (*AK3 Listrik*).
- Article 9 paragraphs 1 - 4 and article 10 paragraph 1 - 5: Inspection and testing of electricity refers to the standard of electricity; carried out by the Labor Inspector *K3 Listrik* Specialist, OHS Expert in Electricity (*AK3 Listrik*) in the Company, and/or OHS Expert in Electricity (*AK3 Listrik*) at *PJK3*; at the time before submission to the owner / user, after

there have been changes / improvements, and periodically; where the results are used as consideration for the issuance of ratification and/or legal guidance and/or action.

- Article 11 paragraphs 1 - 4: Periodic inspections are carried out at least once a

year and periodic testing is carried out at least once every 5 years; where the results are reported to the Head of the Provincial Service and can be used as material for consideration of coaching and / or legal action by the Labor Inspector.

III. Standards of K3 Listrik

Indonesia General Requirements for Electrical Installation (known as *PUIL – Persyaratan Umum Instalasi Listrik*) are specified as standards based on:

- ESDM Decree (*kepmen ESDM*) no. 2046 K / 40 / MEN / 2001 & Permen ESDM no. 008 year 2007 → PUIL 2000.
- ESDM Regulation (*permen ESDM*) no. 36 of 2014 → PUIL 2011.
- Minister of Manpower and Transmigration Decree (*kepmennakertrans*) no. 75 / MEN / 2002 → PUIL 2000.
- Minister of Manpower Regulation (*permennaker*) no. 12 of 2015 - K3 Listrik → article 5: MUST refer to the standards and provisions of the Act (*Undang-undang*).

Please note that for PUIL there are versions to this date as following:

- General Requirements for Electrical Installations (PUIL) 2000 (SNI-0225-2000) amendments 1-2006.
- General Requirements for Electrical Installations (PUIL) 2011 (SNI-0225-2011) amendments 1-2013.

The standards can be using the latest version of PUIL 2011, international standards (such as NFPA, IEEE, IEC, and similar ones), as well as other standards determined by the Labor Inspector *K3 Listrik* Specialist.

References:

- OHSAS 18001-2007: Occupational Health and Safety.
- The Act (Undang-undang) Republic of Indonesia no. 1 of 1970 concerning "Work Safety".
- Minister of Manpower regulation (*permennaker*) no. 12 of 2015 concerning "OHS Electricity (*K3 Listrik*) at Workplace".
- Indonesia General Requirements for Electrical Installation (known as *PUIL – Persyaratan Umum Instalasi Listrik*).
- And other related trainings and requirements/regulations.

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