

1. General information

1. **Safe Work Instruction** - hereinafter referred to as **IBWR** - is the basic operational document, prepared at the project level on writing. This document should be prepared prior to the commencement of construction works and other categories of works described later in this standard.
2. **The main purpose of preparing IBWR** is proper planning and implementation of works together with methods presented for the preventing identified threats related to the planned works. An important issue during IBWR preparing is to carry out the risk assessment for the planned task.
3. **IBWR for the task must be prepared by a competent person** – Contractor's Work Supervisor (e.g. construction manager, works manager or foreman) with the Contractor's OHS service support. During IBWR's preparation the available human and equipment resources, necessary to safe and on time implementation of the task should be analyzed and the available design documentation, milestones schedules, technical and operational documentation of machines and devices or other documentation necessary from the safety perspective should be used. The process of preparing the document should involve all members of the implementation team, whose comments, insights and experience may be crucial.
4. **Work's Contractor before beginning of construction works and other works specified below**, or written in the LG ESWA safe work standards, is obliged to prepare an instruction for safe work and familiarize the employees with the planned scope of works. The instructions must be understandable for each of the employees, so in the case of foreigners, must be read at translator's presence, what is the Contractor's duty.
5. **The Safe Works Instruction (IBWR) must be prepared in the case of performing particularly dangerous works, which include:**
 - whose character, organization or place where they are conducted create a particularly high risk of occurrence of a threat to human safety and health, and in particular being buried by earth or falling from a great height;
 - during which there occurs activity of chemical substances or biological agents threatening human safety and health;
 - posing a threat of ionising radiation;
 - conducted in the vicinity of high voltage lines or active communication lines;
 - creating the risk of drowning of employees;
 - conducted in wells, under the ground and in tunnels;
 - performed by persons driving vehicles powered from overhead lines;
 - conducted in caissons, with atmosphere made from compressed air;
 - requiring the use of explosives;
 - conducted in connection with assembling and disassembling of heavy prefabricated elements;
 - technological tests, including pressure tests and others;
 - fire-hazardous works, including those in difficult conditions (work at height, confined, inaccessible, closed spaces);
 - others, which, due to the large number of threats and the involvement of equipment and personnel, must be described and planned.

The obligation to create IBWR for works listed in Art. 21a paragraph. 2 of the Building Law (of July 7, 1994, i.e. Journal of Laws of 2018, item 1202, 1276, 1496, 1669, 2245, of 2019, item 51) results from § 2 of the Regulation of the Minister of Infrastructure of on February 6, 2003 on occupational health and safety during construction works (Journal of Laws No. 23, item 401).

Remember!

During IBWR's preparation need to remember that it's not only the technology of the task execution, but safe realization process should be described.

The risk reduction methods determined in the risk assessment for the task must be included in the IBWR provisions.

Each IBWR is subject to approval by the site manager and works manager or project manager.

After accepting IBWR, the Work Supervisor must familiarize with its content by his subordinate employees performing a given task. This should be done in the form of training, during which the course of the task should be discussed, with particular emphasis on its safe performance. The fact of carrying out the above-mentioned training courses should be recorded in the form of a list of people familiar with the content of IBWR.

The instruction is prepared and drawn up in a language or languages understood by the employees who are part of the team performing the task covered by IBWR and for the persons verifying and accepting the instructions.

The person directly supervising the work, after implementing all risk reduction methods, is obliged to check their compliance with the IBWR provisions and verify the place of the task implementation in this respect.

10.4 Rules for the preparation of Safe Work Instruction (IBWR)

2. Tips for the preparation of IBWR

When preparing the IBWR, please refer to all clauses of the IBWR form, which is an attachment to this standard. However, you can omit the issues included in the sections of the form that do not relate to a given task.

1. Stage 1. - title page

- a) **work's scope indication** - the drafter indicates the general scope of the task performed, what the instruction include.

INSTRUKCJA BEZPIECZNEGO WYKONYWANIA ROBÓT SAFE WORK INSTRUCTION IBWR

DANE INWESTYCJI <i>Investment data</i>	
Zakres prac <i>Scope of works</i>	Transport, unloading and assembly with the use of a mobile crane of a set of technical modules on the SRP plate in the area of P4 Complex
Nazwa i adres inwestycji <i>Investment name and address</i>	LG Energy Solution Wrocław Sp. z o.o., ul. LG 1A, Biskupice Podgórna, 55-040 Kobierzyce
Wykonawca <i>Contractor name</i>	TSI

- b) **defining the task's Contractor** - the drafter of the instruction specifies the general contractor. If further subcontractors are involved for a task carrying out it should be noted as follows: TSI (KANGWON)

WYKONAWCA <i>Contractor</i>			
	Imię nazwisko <i>Name and surname</i>	Data <i>Date</i>	Podpis <i>Signature</i>
Opracował <i>Prepared by</i>			
Kierujący zespołem <i>Work Supervisor</i>			
Zaakceptował <i>Approved by</i>			

- c) **indication of persons responsible for the IBWR's preparation, supervision and approving** on the part of the Contractor. The records in the CONTRACTOR box must be legible and consistent with the facts, it is required to confirm the preparation of the instructions with the signature of the above-mentioned persons.

NADZÓR INWESTORA <i>Investor Supervision</i>			
	Imię nazwisko <i>Name and surname</i>	Data <i>Date</i>	Podpis <i>Signature</i>
Dział BHP LG ESWA - opiniowanie <i>LG ESWA Health & Safety - review</i>			
Zlecający prace - zatwierdzenie <i>Ordering Party - approval</i>			

- d) **investor supervision** – indication of people who **give their opinion** on the instructions (LG ESWA Health & Safety Department) and **accept the instructions** (Ordering party). The signature of the above-mentioned persons is required. **The instruction without the signatures of the INVESTOR SUPERVISION is invalid.**

Remember!

To simplify the IBWR's preparation each section of the form contains guidelines that can be used during its preparation.

In the case of significant changes related to the implementation of the task that may affect the level of safety, the IBWR should be updated with additional threats, methods of their elimination and risk assessment based on an annex to the existing version of the manual or, if necessary, a new version of the instruction should be developed.

The scope of work must include the main steps, the method of task performing and the location of the work area, in which the activities will be performed.

If the Contractor of the task uses the personal resources of other companies (subcontractors), is obliged to tag an employees of other companies by his high visible vests.

The fact that the implementation team includes employees of subcontracting companies does not release the Contractor from the obligations under the Labor Code and other legal provisions relating to health and safety issues - in particular, the obligation to supervise subordinate employees and the obligation to ensure safe and hygienic working conditions.

All data required under the title page of the IBWR are mandatory.

10.4 Rules for the preparation of Safe Work Instruction (IBWR)

2. **Stage 2. – general work's information** - the drafter of the instruction has to add detailed information on the work that is the subject of the instruction and specifies:

1) **Job performing period:**

- the works will be performed in the period *from to (date)*
- the following breaks are expected during the performance of the tasks *(breaks hours)*
- the works will be performed during the day / night *specify the time (delete as appropriate)*

2) **Place (s) of work:**

- the exact location (area) indicated on the plant *(detailed description)*
- site layout in the attached drawing no *(attach a drawing)*
- the impact of the works on the workplace environment:
 - mechanical factors: noise - the use of hearing protectors is necessary (> 85 dB)
 - psychophysical factors: physical load (static, dynamic)
 - organizational factors: organization of the work area / site *(specify)*

3) **Way of getting to the workplace / access:**

Employees enter the plant through the entrance - main gate *(number, location)*. On the premises of the plant, employees move along designated communication routes. Entering the immediate zone of assembly works from communication routes after crossing the roads on the premises of the plant in designated areas.

4) **Evacuation route:**

In accordance with the marking and development plan of the facility

- evacuation plan in the attached drawing no ...
- assembly point for evacuation in accordance with the markings applicable on the premises of the LG ESWA

5) **Influence of external and internal factors on the safety of work**

The drafter of the instruction identifies and specifies in a tabular form the factors that may or will have an impact on the safety of the work performed, and in the Remarks field indicates the circumstances under which the work will be suspended or interrupted e.g. limit wind force, amount of precipitation, other conditions.

No.	Factor	Impact on safety? (Yes/No)	Influence of the factor on the activities performed	Remarks
1.	Temperature	No	<i>Ambient temperature is not expected to be adversely affected</i>	-
2.	Wind	Yes	<i>All work carried out outdoors in strong winds can be very dangerous - vertical transport with the use of a mobile crane, work at height -- operation of the mobile platform.</i>	<i>In the workplace of the crane and platform it is obligatory to ensure constant measurement of wind speed with an anemometer. The works will be suspended if the wind speed reaches and exceeds 10 m / s.</i>
3.	Precipitation	No	<i>Precipitation is not expected</i>	-
4.	Visibility	No	<i>Visibility limitation conditions are not expected</i>	-
5.	Other (?)	-	-	-

The table above shows an **example of how to identify and describe the factors influencing work safety**. If the works described in IBWR will be performed over a long period of time, the changes of seasons and other conditions, the occurrence of which may cause additional factors, should be taken into account.

Remember!

The planned deadline for the performance of the work may be a maximum of 6 months from the scheduled commencement of work, provided that the scope of work described in IBWR, methodology, threats and risk assessment for the task remain unchanged.

The place of work must be indicated in detail, i.e. taking into account the area, building, level, no. entrances, etc. For this purpose a map is attached and placed in the form of a graphic in the manual. The attached graphics must be legible and understandable for working team.

A map showing the place of work may also contain information on how to evacuate from the work area (marking of exits and escape routes, evacuation assembly points, first aid points or the presence of firefighting equipment). A map showing this information is mandatory. If the Contractor does not have adequate information in this regard - he is obliged to obtain such information from the Ordering Party.

The person preparing the instruction is obliged to include all possible identified external and / or internal factors that may affect the safety of work. The control of weather conditions, which in certain circumstances will lead to the suspension of works or their completion, plays a special role. The Contractor on his own is obliged to monitor the wind strength with an anemometer or a weather station if he plans to perform works with the use of a crane or crane or other transport devices.

3. Stage 3 – Work methodology

- a. The drafter of the instruction has to enter the **detailed** information about the method of task and used technology, also to bear in mind the human, material, equipment, organizational and other necessary resources.
- b. The methodology is described in **tabular form**, maintaining the chronology of activities (numbering of stages) and the following arrangement:
 - **initial activities** (participation of employees in appropriate training, familiarization with IBWR, ensuring appropriate PPE, ensuring supervision, introducing employees to the work area, proper organization of workstations, and others),
 - **main activities** (a detailed description of the main activities related to the task),
 - **final activities** (cleaning the area, completion of work, etc.).
- c. At each stage of work, the drafter enters the identified threats related to the methodology of performing a given activity, indicates the actions to minimize these threats (duties on the part of the supervision and employees) and the safety measures applied (personal and collective protection measures, security measures and others).

4. Stage 4. Rules of conduct in emergency situations - the drafter of the instruction determines:

- a. **general actions** that employees are required to take in the event of an evacuation announcement, a fire alarm or an incident (near-miss, accident) on the premises of LG ESWA. Actions must take into account the way of reaching the escape routes, fire extinguishing equipment, following the voice instructions given by the evacuation devices, providing help, securing property, etc.
- b. **specific actions** that employees are required to take in the event of emergencies that may occur in connection with the tasks performed, described in the manual. **For example:**
 - when working with a mobile platform (working at height), describe the procedure in the event of the worker falling from a height and hanging on the safety rope, and the procedure in the event of a device failure (leakage of hydraulic fluids, battery fire, etc.)
 - when working with electrical devices, the risk that employees may face is the risk of electric shock - therefore, you should plan what to do in the event of such a situation.
- c. **actions related to notification and alert:**
 - notification of the supervisor, the employer, the Health & Safety Department of LG ESWA (*enter the data*)
 - notification of the Company Rescue Services:

LG ESWA Fire Brigade (+48) 532 728 588, (+48) 532 728 587
Medicover Emergency Medical Service (+48) 660 703 286

- notification of state services:

Emergency number 112

Other ? – mention

e.g. LG ESWA technical department managing the area, indicate a contact person and a telephone number by name - in situations involving the need to switch off the energy (e.g. electricity).

Remember!

Description of individual activities within the methodology **must be understandable to every employee** of the working team, i.e. the employee has to know at what stage of work to perform specific activities, what threats may accompany him and how to protect himself against them.

The threats identified and described in the methodology of work performance and the actions to eliminate or minimize them, and the safety measures used **must be the same as those indicated in assessing the risk for the task.**

Safety measures indicated in the methodology, they must be applied in accordance with the requirements of the law on health and safety, refer to company standards and instructions and other documents, the use of which is important from the point of view of employee safety.

Equipment, machines, devices and any resources used by the Contractor in order to perform the task, they must meet the necessary legal requirements in the field of health and safety and other necessary regulations. e.g. the machinery directive. Responsibility for technical condition, meeting the relevant requirements, service and service of devices and machines or other equipment is borne by the Contractor (user).

The equipment used by the Contractor to perform the task, introduced for this purpose on the premises of LG ESWA, is subject to registration. The conditions for registering such equipment are described in **Standard 10.5 Rules of registration machines and devices.**

10.4 Rules for the preparation of Safe Work Instruction (IBWR)

5. Stage 5. – Additional informations – the drafter of the instruction places the data concerning:






- a. **human resources** necessary to perform the work described in the IBWR (employee supervision, employees of the executive team indicating their positions and necessary entitlements) - an example is presented in the table below.

No.	Name and surname	Position	Required qualifications
1.	Andrzej Kowalski	Work Supervisor	Building license
2.	Anna Kowalska	Safety specialist	Health and safety qualifications
3.	Piotr Nowak	Foreman	Employee management entitlements
4.	Jan Nowak	Crane operator	UDT license, driving license
5.	Paweł Nowak	Mobile platform operator	UDT license

- b. **equipment** necessary to perform the work - an example is presented in the table below.

No.	Equipment name	Destination	Formal requirements (licenses, UDT decisions, etc.)
1.	LIEBHERR LTM-1500 Crane WLL 500 T	Vertical transport	UDT certificate, service book, insurance, slings and equipment service, machine information tag (passport)
2.	GENIE GS-3230 Mobile platform	Work at height	UDT certificate, service book, insurance, machine information tag (passport)
3.	KALMAR DCD-160-12 Forklift WLL - 16 T	Vertical transport	UDT certificate, service book, insurance, machine information tag (passport)
4.	Screwdriver and drill	Equipment assembly	Operating manual, CE
5.	Drum extension cord	Equipment assembly	Operating manual, CE, IP44

- c. **personal protective equipment (PPE)** - the drafter presents a list in the form of a table, taking into account pictograms in accordance with EN 7010, the full name (type) of the measure, category / class and compliance with the standard. **The use of PPE that does not meet the requirements of European standards is not allowed.**

Pictogram	Name / type	Category / class	Compliance with the norm
	Protective helmet with chin strap	3 or 4 point chinstrap	EN 397
	Workwear, high-visibility vest, or protective reflective clothing	At least 2 nd class	EN 20471
	Work gloves	Depending on the job category (enter)	EN 388
	Work footwear	S3 class	EN 20345
	Safety harness with rope and shock absorber	Z tylnym punktem zaczepowym	EN 361

Remember!

The Contractor (the company's employer) is responsible for verifying the validity of employees' authorizations, medical certificates and having appropriate health and safety training.

The Contractor (user) is responsible for verifying the technical condition of the equipment (machines and devices) used on the premises of LG ESWA. Introducing damaged equipment, without appropriate documentation (insurance, UDT certificates, service books and others) is forbidden and will result in blocking its use.

Provision of equipment for the elimination of possible leaks from machinery and equipment at the workplace is the responsibility of the Contractor.

The Contractor is responsible for providing appropriate PPE to its employees, controlling their technical condition (register, validity of inspections, etc.). Use of non-compliant PPE during work intended or not complying with the requirements of European standards on the premises of LG ESWA is not allowed.

For the category of particularly dangerous works, e.g. work at heights - personal protective equipment and other security measures are described in company standards with which the Contractor is obliged to familiarize his employees.




For PPE subject to periodic inspection by the manufacturer (e.g. self-breaking devices). The Contractor attaches to IBWR a written confirmation of such inspection.

10.4 Rules for the preparation of Safe Work Instruction (IBWR)

- d. **hazardous substances used during the work** - the drafter enters hazardous substances and materials and the method of waste disposal together with its code - *if not applicable* – enter „NOT APPLICABLE”

No.	Substance name	Attachment no.	Waste management	Waste code
1				
2				
3				

6. **Stage 6. – Risk assessment for the task** - the preparation of the instruction in a tabular form describes the identified hazards occurring at individual stages of work together with the methods of minimizing the risk for the task and the estimated probability and severity of possible effects of threats. An important issue is to indicate the person responsible for the implementation of risk reduction measures. An example of the assessment method is provided below.

RISK ASSESSMENT FORM												
Weight	5	MS	M10	M5	M4	M3	Probability	Wright	RISK			
	4	M3	M6	M7	M8	M12				LOW - ACCEPTABLE		
	3	M6	M9	M8	M5					MEDIUM - REQUIRES CONSTANT MONITORING		
	2	M9	M4	M6	M12						HIGH - UNACCEPTABLE	
	1	M4	M12	M5	M3							
	X	1	2	3	4						5	
Probability							1 = Very unlikely	1 = Slight injuries				
							2 = Unlikely	2 = Light injuries				
							3 = Likely	3 = Serious injuries				
							4 = Highly probable	4 = Heavy injuries				
							5 = Almost certain	5 = Fatal injuries				
No.	Activity (work stage)	Hazards	Preventive measures	Risk assessment after implementation of preventive measures		Estimated risk R=PxW	Responsible for introducing preventive measures (name and surname)					
				Probability	Weight							
1.	Introducing employees on the factory premises	Trip, overturn, hit by oncoming traffic	Use of PPE, move in accordance with the designated traffic routes, comply with road traffic regulations, be cautious	2	3	M6	Andrzej Kowalski					

7. **Stage 7. List of employees familiar with the Risk Assessment for the task and IBWR** - the final stage of IBWR preparation is to familiarize employees of the implementation team with its content and with the content of the Risk Assessment for the task. **The lack of a list of familiarized employees or the lack of confirmation of familiarization with the instruction with the employees' signature makes the instruction invalid and will not be accepted.**

No.	Name and surname	Position	Date	Signature
1.				
2.				

3. Summary

- Preparation by the Contractor** of the Safe Work Instruction (IBWR), plans, maps or other necessary attachments to the permits for their opinion by the Health & Safety Department of LG ESWA **must be completed and sent for approval at least 3 working days before the planned commencement of works** - when this time limit changes in the course of issuing the permit, the rule also applies. The Contractor has the right to request the Ordering Party to provide the appropriate documentation required for the performance of the task.
- The instruction for opinion is delivered by the Contractor electronically in the .docx or .pdf format, compliant with this standard (template in the attachment).
- The IBWR with incomplete content will not be verified and will be rejected.**

Remember!

Safety Data Sheets for hazardous substances used in the implementation of the task described in the manual must be attached to it. The risks associated with the use of specific substances, measures to protect against them and other aspects described in the SDS must be implemented in IBWR (included in the work methodology and risk assessment). The Contractor is obliged to familiarize employees with the content of the safety data sheets before starting work.

The risk assessment for a task should include a chronological sequence of work stages and the associated risks, analogous to the work methodology. The person responsible for introducing preventive measures is the team leader or another person managing the employees designated by the Contractor (Polish supervision).

The list of employees familiar with the risk assessment for the task and IBWR must be written in electronic form (on a computer) to maintain the legibility of the document, employees' signatures are handwritten.

Note: if there are circumstances in the area of work covered by the instruction in which the work will be performed by several companies - the Contractor's Work Supervisor (works manager) is obliged to appoint a health and safety coordinator in this area, in accordance with Art. 208 of the Labor Code. The IBWR should then include an appropriate statement of the works manager, who will personally supervise the appointment of the aforementioned coordinator. The declaration template is included in the IBWR form, which is an attachment to this standard and the only acceptable form of IBWR preparation on the premises of LG ESWA.