

United Energy, a.s. Teplárenská 2 434 03 Most – Komořany	Decision No. RO-UE-2201	Issued on: 27 January 2022
Prepared by: Ing. Tomáš Jirásek (Head of OHAS and Fire Protection)	Provision of safety when working at heights	Sponsor: Ing. Boháček Milan (Chief Executive Officer)
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Preamble

With this Decision, United Energy, a.s. And Severočeská teplárenská, a.s. (hereinafter referred to as "UE") introduce organisational and technical measures at their workplaces to ensure the safety of all persons when working at heights, above free falls and above or near water surfaces (hereinafter referred to as "work at heights").

The Decision is issued on the basis of Government Decree No 362/2005 Coll., laying out more detailed requirements for safety and health protection at work in workplaces involving a risk of falling from height or into depths, and on the basis of the applicable Czech technical standards.

Article I Definitions and terms

For the purpose of this Decision, the following definitions apply:

PPE Personal Protective Equipment

PPE for work at heights protective helmet, fall arrest harness, fasteners, fall arrest device, fall energy absorber, movable fall arrest device, clutches, retractable fall arrest device, safety positioning belt

Work at heights such work operations where there is a risk of injury from a fall, regardless of the height at which the work is carried out, the equipment used for the work and duration of the work

Designated person a person performing designated sub-tasks as part of the work at height

Head of works at height a senior UE employee, a representative of the contractor providing the work at height

Worksheet issuer a senior UE employee, competent UE operation manager

Employer a legal or natural person employing natural persons (employees)

Work at height contractor UE or an external company

Article 2

Fall protection

- 2.1** Every employer at a UE workplace shall ensure the protection their employees or persons present at UE workplaces with their knowledge:
- a) against falling from a height when working at heights and above unobstructed depths of more than **1.5 m** and at any height above a water surface or the surface of other substances which, in the event of a fall, would compromise their life or health (any need to secure employees at heights less than 1.5 m must be established by means of a risk analysis),
 - b) at a workplace or on a road with the **floor more than 0,5 m** above the surrounding floor or ground and at the free edges of bridges, footbridges, walkways, stairways and levelling ramps.
- 2.2** **Fall protection does not need to be provided:**
- a) on continuous surfaces with an incline of not more than 10 degrees relative to the horizontal as long as the workplace or access road, as the case may be, is bounded by suitable fall protection equipment, for example a barrier placed at a distance of least 1,5 m from the edge where there is a risk of falling (the “free edge”),
 - b) along the free edges of openings whose ground plan dimensions do not exceed in at least one direction 0.25 m,
 - c) where employees or other people are protected by collective protection (guardrails, scaffolding, etc.).
- 2.3** Unstable objects and objects intended for other uses (buckets, barrels, chairs, tables, etc.) may not be used to raise or climb to the workplace.
- 2.4** Work at heights must not be carried out if the adverse weather conditions, taking into account the fall protection devices used, may endanger the safety and health of people (see point 6.2 of this Decision).
- 2.5** Ideally, fall protection must be provided by means of collective protection devices such as technical structures, e.g. guardrails, fencing, containment structures, and temporary structures, e.g. scaffolding, working platforms, hatches.
- 2.6** **Collective fall protection**
- 2.6.1** Guardrails and fall arrest structures (guardrails, guardrails, scaffolding, hatches, containment fencing, scaffolding, safety nets) must be sufficiently strong and sturdy to withstand external forces and adverse influences and fixed so as to safely withstand the anticipated stresses. Their load-bearing capacity must be demonstrated by a static calculation report or other binding instrument (to be produced by the installer).
- 2.6.2** Floor openings and ground depressions whose ground plan dimensions exceed 0,25 m in all directions must be covered immediately after they are formed by covers of an adequate load-bearing capacity secured against displacement, or the free edges of such openings must be secured, for example, by railings or fencing. Fall barriers (e.g. gates, barriers or chains in front of ladder entrances) must be permanently maintained in their position as to prevent falls (except for the entry entrance and exit points). Employees of UE or external contractors are required to make sure before commencing their work that the openings are secured with appropriate guards and that the fall barriers are in the fall-arrest position.
- 2.7** **Personal fall protection equipment**
- 2.7.1** Personal protective equipment (PPE), namely the fall protection PPE, must be used wherever the nature of the work precludes the use of collective protection equipment or where the use of collective protection equipment is not practical or sufficient to ensure safety of the employees in view of the

nature, anticipated scope and duration of the work and the number of persons designated to carry out the work at height (hereinafter referred to as "designated persons").

- 2.7.2** Where personal fall protection PPE must be used when working at heights, the employees **must not engage** in such work **alone** (except for when ascending and descending a ladder). The designated persons must be equipped with mobile phones or radios to summon assistance in case of need.
- 2.7.3** The fall protection PPE must be appropriate to the nature of the work being carried out and the anticipated risks and allow safe movement.
- 2.7.4** Depending on the purpose and method of use, they are divided into the following categories:
- a) Work positioning and fall prevention PPE (work positioning systems). In these cases, the designated person must be prevented from entering the area where there is a risk of falling (within 1,5 m of a free edge) or the designated person must be kept in a working position so that a fall from a height is completely prevented.
 - b) Fall protection PPE (fall arrest systems). Any fall must be safely arrested and at the same time the person must be rescued as quickly as possible in the event of a fall.
- 2.7.5** Designated persons are required to ensure that the PPE is complete, serviceable and in a safe condition before being used.
- 2.7.6** PPE must meet the requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council on personal protective equipment.
- 2.7.7** When personal protective equipment is used, the fixing points (anchor points) must be determined by the supervisor overseeing the work at height (hereinafter referred to as the "work supervisor").
- 2.7.8** When working on a ladder, the designated person must be **secured against falling** using PPE when standing with their feet **at a height of more than 5 m**. The safety basket of fixed ladders is not a fall arrest device.
- 2.7.9** Work at heights at UE workplaces requiring the use of fall protection PPE:
- Replacement of in-built coolers on cooling towers,
 - Work on masts,
 - Paint jobs,
 - Ceiling renovation work on the production floor where a temporary building construction cannot be installed,
 - Work on rooftops, structures, installations where collective fall protection cannot be provided for employees, including de-icing,
 - Measuring oil levels in the TG 4, TG 5 and TG 6 oil tanks,
 - Chimney work,
 - Cleaning or maintenance of fuel storage tanks, storage silos or limestone silos,
 - Maintenance of building envelopes (cleaning windows, replacing window panes, repairing or renovating façades),
 - Work on the Chemistry Department tanks,
 - Training of the company's fire brigade within the main production block,
 - Going up and down the ladder as per point 2.7.8 of this Decision (e.g. sump or collector entry, ascending on the roof of the building or installation, ascending a chimney, etc.),
 - Constructing and dismantling the scaffolding, until such time as collective protection is installed or removed.

Article 3

Working procedure for work at heights - requirements for the preparation and execution of the work

3.1 For any work at height, a worksheet for work at height (hereinafter referred to as the "worksheet") must be drawn up using the form attached hereto as Annex 1. The authorised issuer of the worksheet at UE workplaces is at all times:

- | | |
|---|--|
| a) Investment Engineer, | l) Gauge Service Technician, |
| b) Repair Coordinator, | m) Primaries Technician, |
| c) Shift Engineer, | n) Preparation Technician, |
| d) Shift Technician, | o) Secondaries Technician, |
| e) Primaries Manager, | p) Plant Fire Brigade Chief, |
| f) Boiler Room Manager, | q) Chief Electrical Systems Supervisor, |
| g) Measurement and Control Manager, | r) Lead Boiler Room and Common Technologies Manager, |
| h) Management Control System Manager, | s) Lead Engine Room Manager, |
| i) Engine Room Manager, | t) Head of Building Department |
| j) VS and Secondaries Manager, | u) Head of the CZT Unit. |
| k) Electric and Measurement and Control Technician, | |

3.2 Before commencing work at height, the job manager must fill out a worksheet which will, among other things, in writing:

- a) determine the job site and how the area below the work at height site will be secured, assess the risk of falling objects (pieces of material, etc.) and, if necessary, consider the installation of a safety net or the prevention of access to the potential impact area of falling objects,
- b) determine the work procedure, method and scope of work depending on the risk assessment,
- c) delimit (secure) the workplace boundaries, determine the utility lines marking and indicate who the technology will be secured, etc.,
- d) determine the appropriate PPE for work at height and carry out a visual inspection,
- e) identify the fixing points and disclose the location thereof to the designated persons,
- f) devise a record of the instruction of all designated persons who will be present at the workplace concerned regarding the possible risks and hazard points at the workplace with regard to the specific work-at-height activity,
- g) only assign the specific work activities to persons who are:
 - medically fit to engage in the work-at-height activity,
 - professionally competent for the work-at-height activity (a valid certificate of instruction on legal and other OHAS regulation, professional training in work-at-heights, etc.),
 - properly equipped to engage in the work-at-height activity (PPE subject to regular inspections, with the use of which the designated persons have been demonstrably familiarised in accordance with the instructions for use and in accordance with the laws in force).

3.3 Prior to commencement of the job, the job manager is in addition required to **produce to an OHAS and Fire Protection representative** inspection reports for all work-at-height PPE to be used by the designated persons at UE workplaces and ensure the completion of:

- a workplace and equipment condition check - floors, ascents, descents (ladders, stairs, handrails and guards); if deficiencies are identified, the job manager must determine an adequate replacement measure to ensure safe execution of the work,
- workplace cleaning, removal or safe deposition of material, oil and emulsions (storage, disposal in line with environmental principles),

- provision of proper and safe technical workplace equipment and production and work equipment and parts thereof so as to eliminate any hazards to persons,

3.4 If the work at height is conducted solely by UE employees, the worksheet issuer may at once be the job manager. In such a case, the worksheet must be completed in accordance with the template attached as Annex 2 to this Decision.

3.5 Where the work at height is carried out in close proximity to a water surface, e.g. from a bank that is not provided with a safety railing, work-at-height PPE must be used and fixed in such a way and at such a place that it will be sufficiently strong in the event of a fall.

Article 4

OHAS precautions when working on a rooftop

4.1 Designated persons conducted rooftop work must be protected against:

- a) falling from the roof sheathing on the free edges,
- b) slipping off and falling from the roof for roofs with slopes above 25 degrees,
- c) falling through the roof structure.

4.2 The job manager will ensure protection against falling from the rooftop not only along the perimeter but also around skylights, technological and other openings by using a protective or fall arrest structure or by using fall protection PPE.

4.3 The job manager is required to ensure slipping protection using ladders fixed at the workplace and the necessary pathways, or using a protective structure or fall PPE. For roofs with a slope exceeding 45 degrees relative to the horizontal, fall PPE must be used in addition to ladders.

4.4 Fall protection shall be provided on all roof sheathing where the ground plan distance between laths or other load-bearing elements of the roof structure is greater than 0,25 m and where no guarantee is provided that the specific roof elements will not break under the load introduced by the persons on them, including tools, work equipment and materials, or where the load is not adequately distributed using an auxiliary structure (working or access floor, etc.).

4.5 Activities involving the construction and repair of chimneys from rooftops with a slope of more than 10 degrees must be carried out from a safe working area at least 0.6 m wide.

Article 5

Securing the area below and above the place where the work at height is conducted and in close proximity thereof

5.1 The arrangement where individual workplaces are located above each other should be avoided except for exceptional cases. In such cases, safety must be ensured at the lower workplaces, in particular through protection against falling objects and materials, including flying molten material from welding, burning, grinding or other operations, so that the safety of the persons at the lower levels is not endangered. The method of securing such work shall be specified in the process procedure. If the method is not specified in the process procedure or the process procedure is insufficient, the job manager must specify the method themselves, familiarise the designated persons with the working procedures and the method of securing the workplace and make a clear record of the methods of securing the workplace and carrying out the work in the construction (installation) logbook.

5.2 Protective zones (danger areas) must be established below the places where work at height is undertaken and access to the protective zones must be prevented. The area at risk must be defined relative to the vertical starting at the outer free fall edge of the place where work at height is undertaken.

- a) The area at risk shall be determined as follows:
 - 1.5 m when the work is undertaken at a height between 3 m and 10 m,
 - 2 m when the work is undertaken at heights above 10 m and up to 20 m,
 - 2,5 m when the work is undertaken at heights above 20 m up to 30 m,
 - 1/10 of the height of the building when the work is undertaken at heights of more than 30 m.
- b) The designated supervising staff must define the area at risk (protection zone) must be protected using barriers - a two-pole railing system with a height of at least 1.1 m (unless, for example, the instructions for use of the scaffolding specify a different railing size), or fencing, i.e. in particular by excluding traffic. Fencing or marking the area with prohibitive safety signs, tapes, etc. shall be used as an additional measure.

The aforementioned risk areas (protection zones) must be extended by 0,5 m if work is undertaken over them on surfaces with a slope of more than 25° relative to the horizontal, or by 1 m on all sides of the profile of vertically transported loads or materials.

- 5.3** Material, tools and equipment must be deposited or stored at heights so as to be secured against falling, slipping or collapsing under the effect of the wind during and after the work.

Tools must not be hung on articles of clothing unless they are specially adapted or unless suitable equipment is used.

5.3.1 Dropping items and materials:

- a) As a general rule, it is prohibited to drop items and materials from places where work-at-height is undertaken. In particular, it is strictly prohibited to drop items in respect of which the point of impact cannot be determined with certainty. This includes, for example, flat materials such as sheet metal, plywood, cardboard, etc. It is also strictly forbidden to drop items that could drag the designated persons down from a height, e.g. by getting caught in their clothing, by toppling them over, or by sticking out, etc.
- b) If material is to be dropped from a height or into a free fall, the following must be ensured prior to the commencement of the operation at all times:
 - the place of impact must be secured against entry of any people, e.g. by fencing, railing or guarding, i.e. traffic must be excluded in the impact area and in its proximity and precautions must be taken against rebounds or splashing of the dropped material or objects or against the ejection of parts of the surface on which the material may fall,
 - the dropping of materials and objects using an enclosed drop chute leading to the point of deposition,
 - effective precautions must be taken to prevent the formation of excessive dust, noise or other undesirable factors.

- 5.3.2** The dropping of material from a height or into a depth is also prohibited if such activity causes or could cause damage to property or endanger other protected interests, such as lives and health of people and property.

Article 6

Interruption work at heights

- 6.1** A designated person is required to interrupt the work-at-height if they cannot continue with the operation in a safe manner, and notify the job manager.

- 6.2** A designated person must interrupt the work-at-height if such circumstances occur that markedly increase the risk of a fall or slipping. Such circumstances include, without limitation:

- a) storms, rainfalls, snowfalls, hail, ice formation,

- b) fresh winds above 8 m.s⁻¹ when working on suspended work platforms, mobile scaffolds, on ladders at a height of more than 5 m and when using a rope sling for work positioning systems; otherwise, strong winds above 11 m.s⁻¹,
- c) the visibility range at the place of work is less than 30 m,
- d) the ambient temperature is below -10°C while the work is undertaken,
- e) exposure to industrial, climatic or other influences which create a direct and imminent danger to life and health and which are reasonably comparable to the conditions listed above,
- f) situations where the above conditions are imminent but have not yet occurred, e.g. an approaching storm, etc., will also be regarded as grounds for interrupting the work.

- 6.3** A designated person, who has interrupted their work-at-height operation due to any of the the aforementioned or other circumstances shall immediately report the interruption to the job manager unless the the job manager or other competent person have ordered the interruption.
- 6.4** Short-term absence of a designated person from the workplace to attend to social needs, such as washing of the hands or other parts of the body, going to the toilet, etc., organised meal and rest break or safety break, etc., will not be regarded as an interruption of the work-at-height operation.
- 6.5** A designated person, whose health condition has markedly change adversely during a work-at-height operation, e.g. the onset of adverse symptoms of an illness, nausea, dizziness or other momentary indisposition that could compromise safety, is also required to immediately discontinue the work-at-height operation and report this to the job manager (their health state permitting) or seek medical attention.
- 6.6** If a situation arises during the work that is not described in this Decision, the designated person who becomes aware of this is required to immediately discontinue the work and inform the job manager.

Article 7

Final and transitional provisions

- 7.1** This Decision is binding on all employees of United Energy, a.s., Severočeská teplárenská, a.s. and employees of other companies carrying out inspection, construction, installation and maintenance work and related work within the meaning of Government Regulation No. 362/2006 Coll.
- 7.2** I hereby charge the senior staff members at all levels of management to introduce this Decision to all employees of United Energy, a.s. and Severočeská teplárenská, a.s., who oversee, manage or perform acts and activities pursuant to this Decision.
- 7.3** I hereby instruct the employees responsible for overseeing contractors' activities to make the relevant representatives of the Contractors, as specified in the commercial contract, aware of this Decision as an integral part of the terms and conditions.
- 7.4** I hereby instruct the OHAS and Fire Protection staff to include this Decision in the training syllabus delivered to the contractor's responsible representative.
- 7.5** I hereby delegate the responsibility for monitoring compliance with the provisions of this Decision to the Head of the OHAS and Fire Protection Department.

Ing. Milan Boháček
Chief Executive Officer
United Energy, a.s.