

## 1 Preamble

In the following text, AMAG service GmbH (SER), AMAG rolling GmbH (ROL) and AMAG casting GmbH (CAST) will be referred to as customers (CU) and external companies as contractors (CO). The subsequent regulations are intended to guarantee that the employees of the CU and the CO, as well as sub-contractors employed by the CO, can complete their assignments in safety and leave the place of work in a healthy condition.

These hazard notes and safety regulations are part of the basis for orders. They are to be made known, in suitable form, to the CO's employees who are responsible for assembly by the CU's officers.

All employees of the CO must be instructed demonstrably about the safety regulations effective on the factory premises.

Should the contract involve work in the production areas of CAST or ROL or SER areas, an additional "External Company Work Permit for the Production Areas/or SER areas" along with the corresponding area-specific instruction must be obtained prior to the start of work. The initial training in the general safety regulations and the area-specific safety regulations (ROL/CAST) takes place via the contractor portal (see AMAG\_ASV\_006\_AnH04 and AMAG\_ASV\_006\_AnH05\_00).

The CO shall be responsible for the safety training of the employees and timely registration on the contractor portal.

As a visible indication that instruction has taken place, these persons shall carry an external company identity card (will be provided by the CU, see Illustration 1). The CU shall determine the length and area of validity of instruction in line with the type of contract involved.

Furthermore, the CO is obligated to fulfil all instructions from AMAG personnel and complete the work commissioned quickly in strict adherence to its own safety regulations with the appropriate qualified personnel.

Violations of these stipulations may lead to the loss of the entitlement to remain on the plant premises.



Illustration 1

## 2 General hazard notes and safety rules

- 2.1 Only appropriately instructed performing agents of the CO shall be entitled to complete work on the premises of the CU. The CO must constantly be capable of making known which performing agents are being on duty in the company. The performing agents shall possess the necessary expertise and a sufficient knowledge of German for the commissioned work.
- 2.2 The CO shall be obliged to observe the respectively valid stipulations of the trade supervision, the accident prevention regulations of the authorities responsible for the plant location, and those of the accident prevention institutes, which apply to employee safety and are of relevance to the object of the order.
- 2.3 During all work, the statutes of the "Employee Protection Act", the "General Employee Protection Directive", the "Construction Worker Protection Directive" and other stipulations of the trade supervisor authority, as well as the recommendations of the AUVA shall be strictly adhered to. The CO shall be liable for adherence to these stipulations on site until the final handover of the work.
- 2.4 Work prohibitions and the statutes of the Working Time and Rest Periods Acts, as well as relevant regulations of the collective wage agreement currently in force shall be observed.
- 2.5 Should the CO have concerns regarding instructions and/or provisions (substances, materials, objects), or the services provided by other companies or the CU, it shall immediately inform the CU in writing and make realizable improvement suggestions.
- 2.6 All CO employees shall have the right and obligation to inform CU officers of work, plant components or procedures that are dangerous or constitute a health hazard.
- 2.7 The CO and its performing agents shall be obliged to provide the CU with prior written warning of the use of dangerous working materials.
- 2.8 In the case of medical emergencies, the emergency services must be informed immediately by phone at **+43 7722/801 - 144**.
- 2.9 For fire safety supervision services, the plant fire brigade must be contacted.
- 2.10 For fire-fighting as well as in case of gas and water leakages that pose imminent danger, the plant fire brigade must be informed immediately by phone at **+43 7722/801 - 122**.
- 2.11 Every safety incident or near-accident must be reported immediately to the CU.
- 2.12 Work involving danger that exceeds the levels generally accepted as normal for the respective activity is to be coordinated betimes and mutually in writing.
- 2.13 All CO employees shall be directly and personally responsible for their own safety, as well as the safety of their colleagues and other CU personnel who are in their vicinity.
- 2.14 Alcohol and narcotics are prohibited all over the entire area!
- 2.15 Warning! Aluminium components can be extremely hot and therefore should not be touched.
- 2.16 The speed limit for road vehicles is 30 km/h and 20 km/h for transport equipment, e.g. loaders and stackers. The regulations of the highway code shall be observed and traffic signs obeyed.

- 2.17 The railway shall have unrestricted right of way. Walking on the track outside the level crossing area is forbidden. The tracks are to be kept free under all circumstances. In the case of protected or closed level crossings, waiting is obligatory and crossing is strictly forbidden.
- 2.18 Vehicles may only be parked on the allocated parking spaces. Roads are to be kept free except during loading activities coordinated with the CU.
- 2.19 Driving through the production halls/workshops with CO vehicles is only allowed after consulting with the respective management and must be recorded in the "External Company Work Permit". Exceptions for bicycles and motorcycles are not permitted.
- 2.20 All prohibitive, mandatory, warning and information signs, as well as bans and limitations on access are to be observed. Repair signs may only be removed by the construction site managers.
- 2.21 Entries and exits, marked keepout areas and especially emergency exits, shall be kept free of obstruction at all times.
- 2.22 A general ban on photography exists throughout the plant premises. Exceptions are to be granted.
- 2.23 The unauthorized start-up and operation of working equipment, plants, cranes, machinery or motorized vehicles (stacker, etc.), as well as approaching running machines are strictly forbidden. Safety devices may not be taken out of operation without the written permission of the respective coordinator of the CU ("Hausherr").
- 2.24 During work in the danger areas of cranes (e.g. crane track, slab transport over streets), safety measures shall be taken in consultation with the company (e.g. crane or slab transport shutdown, crane stopper or organizational measures, e.g. remote controls of the cranes are to be kept safe by the personnel working in the danger areas) and if necessary, the neighbouring area shall also be informed.
- 2.25 Plant components are to be secured correctly prior to disassembly.
- 2.26 Because of the design of the facilities, "stored energie" might remain in the system, e.g.:
- Components preloaded with spring force
  - locked hydraulic or pneumatic pressure
  - stored electrical energy (e.g. electric intermediate circuit in switching systems, batteries, capacitors, ....)
- 2.27 Are there any accumulated energies and have they been dissipated or isolated? (pre-tensioned springs, locked pressure, stored electrical energy, intermediate circuits in switching systems etc.). Are machine parts held in position by locked pressure, spring-load or electrical energy? (When working on these parts or in close proximity to them, the parts must be secured against unintentional movement)
- 2.28 Waiting in danger areas of vehicles (e.g. stackers, loaders, ...) cranes, etc. is forbidden.
- 2.29 When entering and leaving the production halls/workshops only the doors for pedestrians are to be used.
- 2.30 Lifting may only be carried out using suitable lifting gear. Visual inspection of the lifting gear must be completed.
- 2.31 Scaffolding is to be put up correctly and may not be altered following acceptance (acceptance protocol must be provided).
- 2.32 Ladders shall correspond to the ÖNORM.
- 2.33 Points harbouring the danger of falls (e.g. drain opening and installation pits) shall be secured.
- 2.34 Electrical equipment shall correspond to the "General Technical Regulations for the Electrical Equipment of Industrial Machinery" of the CU. Distribution boxes are to be installed properly and only with the approval of a plant electrician.

- 2.35 A corresponding permit must be obtained prior to the start of excavation work. Before entering or working in excavated pits, ditches, and trenches a release note (SA\_02\_024 Anh02) has to be filled in and put posted on site.
- 2.36 A permit for the entire area must be obtained prior to hot work (welding, cutting) "Freigabeschein für brandgefährliche Tätigkeiten" AMAG\_ASV\_005\_Anh02).
- 2.37 Prior to the commencement of grinding work, machines and goods in the vicinity shall be cleared away or carefully protected.
- 2.38 Switching operations on systems may not be carried out by the CO. Exceptions are to be established on the "External Company Work Permit" form.
- 2.39 Only specifically instructed skilled personnel shall be permitted to enter electrical operations rooms. Operations rooms shall be kept locked at all times. Working in electrical operations rooms shall be coordinated with the responsible maintenance department. The guidelines for such work, e.g. for fire-fighting in or close to electrical plants, or the rules for first aid for accidents involving electricity shall be adhered to.
- 2.40 The following safety measures shall be adhered to when walking or working on roofs:
- Walking on roofs may only take place in the area of the eaves or via a purlin.
  - The transport and placing of loads may only take place on scaffolding boards. The stanchions must extend over two purlins.
  - From a fall height of 1 m is either:
    - a) a railing with a baseboard and a minimum height of 1 m necessary.  
(If the existing parapet or window parapet is at least 20 cm width, the necessary height can be reduced to 0.85 m).
    - b) a suitable fall protection (e.g. belt and safety rope) necessary.
  - If no appropriate attachment points are available on site, mobile/temporary attachment points according to EN 795 Type B or Type E must be set up and used.
  - Specific hazards, such as breakthrough due to insufficient ultimate load of the roof construction, breakthrough through transparent construction components (glass domes, transparent trapezoidal sheet, etc. are to be considered as non-load-bearing) and slipping in respective weather conditions are to be inquired with the project manager/area manager.
  - If dangers for individuals can arise because of falling objects, the danger area must be cordoned off, alternatively a flagman has to be provided.
- 2.41 Prior to entering sewers, trenches or basins with a depth greater than 1 m, as well as containers and tanks, etc., special safety measures must be taken for the protection of the persons involved. In particular, the regulations contained in §§ 41, 59 and 60 AAV are to be strictly observed (AMAG\_ASV\_008 „Befahren von Behältern, Silos, Schächten, usw.).
- 2.42 Works on machines and plants shall only commence after the planned activities have been coordinated in detail with the CU personnel responsible for the plant and machinery. In the case of work lasting several days, the responsible CO employee shall daily report to the CU and the affected production area prior to the start of work. Before leaving the working area, the responsible CO employee must sign off with the CU. Any interruption must be coordinated by the CO with the CU (Area Manager Standards, external company work permit, AMAG\_ASV\_006).
- 2.43 Prior to the start of work, the responsible CO employee shall ensure that he/she has been shown the vehicle parking spaces, materials, tools and driveways, escape routes, the nearest telephone, sanitation and break rooms. Vehicles, materials and tools belonging to the CO may only be parked or stored in those areas designated by the CU.
- 2.44 The work shall only be regarded as concluded, when the CU and the CO establish this in writing in a protocol.
- 2.45 Exceptions to the rules listed above shall only be valid, when the respective, responsible person of the CU has given his/her written permission.

- 2.46 During gardening and landscaping activities (e.g. mowing the lawn, cutting trees, etc.) the arising hazards (e.g. slinging away of pebble stones during lawn mowing, falling branches, etc.) are to be secured accordingly by the CO, and the areas are to be cordoned off respectively.
- 2.47 The factory guards must immediately be notified of damages caused by bumping into vehicles, buildings or facilities. (e.g. during transport, cleaning or winter service activities, etc.)
- 2.48 If special precautionary measures are required for transport activities (e.g. safeguards, cordons, banksmen, personal protective equipment, etc.), this is to be coordinated with the responsible project manager/area manager.
- 2.49 A general ban on smoking in workplaces applies to the entire premises of AMAG. The designated smoking areas are to be used.
- 2.50 When mounting a container or when bringing containerfacilities into service, the form „Anschluss der Medien von Containern und Containeranlagen“ SA\_02\_026\_Anh01 must be filled in.
- 2.51 If aerial work platforms are being used to run operations on the plant site, all persons on the aerial work platform or in the work basket must wear the appropriate personal protective equipment (PPE) (see number 8). Only marked attachment points may be used.
- 2.52 All persons in the work basket on the aerial work platform must wear their industrial protective cap with a 4-point-chinstrap against slipping and falling off (see number 8).
- 2.53 The operating instructions must be observed when load transportations are carried out with/on aerial work platforms. Do not use as crane, support device or towing device (e.g. do not attach a load to the boom or basket in order to tow it)
- 2.54 If it is necessary to leave the work basket of the aerial work platform in order to carry out operations, this must be done according to the instructions given in the check list "Formular Arbeitsvorbereitung Aus- & Übersteigen" SA\_08\_021\_Anh01 and the form must be filled in.
- 2.55 Before commencing operations a working rescue concept must be established. The rescue concept requires that a second person is constantly present on the ground. When indicated, this person must take the necessary rescue measures. If two persons are in the basket, an additional person on the ground is not necessarily needed.  
Corresponding emergency situations are (see number 9):
- rescue from extended aerial work platform (basket)
  - fuel shortages, control failure, trigger of overload switch
  - in case the aerial work platform (basket) or moving parts get caught
  - rescue of a person dangling in the safety harness
  - first aid in case of suspension trauma
  - accidents with overhead lines (aerial work platform is live)

### **3 Special sources of danger (CAST)**

- 3.1 In addition to the general dangers of accidents, additional hazards exist during work in the CAST due to gas (chlorine, argon, nitrogen, natural gas, oxygen), burns (hot plant components, liquid metal), electricity, infrared radiation and noise. During some activities, the respiratory organs may also be subject to further dangers or burdens caused by dust and mineral fibres.
- 3.2 **The CU particularly points out that liquid metal becomes highly explosive upon contact with moisture or liquids.** Therefore, the CO shall ensure that no liquids are handled in areas where casting operations take place. Special permission in this regard may only be granted in writing by the responsible coordinator of the CU.
- 3.3 All the cellar rooms of the CU are equipped with alarms for CO<sub>2</sub>, Cl<sub>2</sub> and oxygen deficiency. Should these alarms sound, the cellar rooms are to be evacuated immediately and the responsible person appointed by

the CU must be informed without delay. Until further notice, only CU employees may enter the cellar rooms.

- 3.4 Electromagnetic fields: The marked areas (e.g.: transformer rooms, chips drying plant, EMC-plants; induction melting furnace SO33; EMP-Pumps at SO4, SO25, SOGO22 and SOGO7; electromagnetic mixers at SO10, SO16, GO23, GO24 and GO48) must not be entered by persons with active medical implants (e.g. pacemakers) and pregnant women.
- 3.5 No cans, containers or other refuse may be disposed of in the scrap boxes and bins!
- 3.6 It is forbidden to bring lighters into the foundry!
- 3.7 In all production areas where safety glasses must be worn, wearing of watches und metal jewellery is forbidden!

#### **4 Special sources of danger (ROL)**

- 4.1 In addition to the general dangers of accidents, additional hazards exist during work in the ROL due to gas (CO<sub>2</sub>), burns (hot plant components, aluminium products, semis), electricity and noise.
- 4.2 The production areas glossrolling mill, „Kaltquarto“ (four high cold rolling mill) and „Kaltwalzgerüst 2“ (cold rolling mill 2), including the cellar rooms, are equipped with a CO<sub>2</sub> extinguishing system. Should this be actuated, an alarm sounds and the workplace is to be evacuated immediately. The CO<sub>2</sub> extinguishing agent is odorized with a lemon fragrance for improved perception. A return is only permissible following an all-clear from the plant fire brigade.
- 4.3 For certain stationary measurements, X-ray „Kaltquarto“ (four high cold rolling mill) and isotope emitters (production area gloss rolling mill, „Kaltquarto“ (four high cold rolling mill), „Kaltwalzgerüst 2“ (cold rolling mill 2)) are used. Lasers are also utilized actively for distance measurements, etc. in the production plants. During work on this equipment, coordination with the production units and possibly a deactivation is required.
- 4.4 Before beginning work to be completed in chemical plants (Airpure, neutralization, rolling oil treatment, passivation of the „Banddurchzugsofen“ (continuous annealing furnace) etc.) the CO shall become acquainted with the emergency equipment (eye wash, etc.). The PPE listed in number 8 is a minimum requirement for these areas. The particular PPE for the activity must be coordinated with the contact person of the CO.
- 4.5 In the production halls, attention should be paid to stacker traffic and right of way be given. Driving areas are to be kept free.
- 4.6 Strips and plates are transported by cranes. It is strictly forbidden to walk or remain under suspended loads.
- 4.7 In all production areas of the ROL the wearing of a safety helmet, hearing protection and safety shoes is mandatory (Detailed establishing of the protective equipment - see number 8).

#### **5 Special sources of danger (SER)**

- 5.1 The area of the waste disposal site must always be kept blocked, the key is located in the secretariat SER GF, here you also have to register and deregister. The waste disposal site may only be entered with at least 2 persons, who must carry mobile phones (e.g. make an emergency call). Settlements must be expected in the area of the waste disposal site.

## **6 Environment**

- 6.1 AMAG runs an environmental and energy management system. Environmental hazards and impacts must be avoided with special care. Environmental regulations must be complied with.
- 6.2 Environmentally hazardous substances, dangerous substances and the disposal of waste must be notified in advance to the customer. The disposal may only be carried out by licensed waste disposal companies according to the current legislation. Waste containing oil may only be disposed of in the containers foreseen for this purpose.
- 6.3 In all cases, cans (beverages, dyes, paints, etc.) are to be disposed of by the CO and its performing agents respectively outside the premises of the CU.
- 6.4 The CO exclusively shall be liable for any environmental damage that the CO may cause.
- 6.5 Every environmental incident (e.g. leakage of fuel, lubricants or coolants) must be reported immediately to the CO.

## **7 Order and cleanliness**

- 7.1 Care must be taken that possible tripping hazards on the construction site are continually removed. Attention is to be paid to order and cleanliness during all working phases.
- 7.2 Temporarily laid cables or hoses, which cross paths or walkways, must be positioned at least 2 metres above floor level or be marked with warning signs. Stacker transport and crane operations are to be accounted for.
- 7.3 The responsible person of the CO shall ensure that working, parking and storage areas are left in a properly cleaned condition.

## 8 Personal protective equipment

8.1 The personal protective equipment (PPE) to be worn in the individual companies is determined in the following table. The CO shall provide his performing agents with the necessary PPE in accordance with the table. Should the CO be unable to provide the PPE in time, it must be obtained from the CU (e.g. green helmets for CAST). Working with equipment other than the prescribed PPE is not permitted.

PPE	Requirement	SER	ROL	CAST	Remarks
Safety Helmet <b>Green: external company</b>	CE designation/EN 397 PF-SF MM Type A			✓	constantly
Safety Helmet when working on roofs	CE designation/EN 397 PF-SF Type A <i>During lifting activities or when standing in the slewing range of crane installations the requirement to wear a helmet also applies on roofs!</i>			✓	as required
Safety Helmet	CE designation/EN 397	✓	✓		constantly
Safety Helmet when working on roofs	CE designation/EN 397 <i>During lifting activities or when standing in the slewing range of crane installations the requirement to wear a helmet also applies on roofs!</i>	✓	✓		as required
Safety Helmet with 4 point chinstrap when using aerial work platforms	CE designation/EN 397 PF-SF MM Typ A <i>Required for all persons on the working platform, cage or platform</i>			✓	constantly
Safety Helmet with 4 point chinstrap when using aerial work platforms	CE designation/EN 397 <i>Required for all persons on the working platform, cage or platform</i>	✓	✓		constantly
Safety glasses		✓	✓		as required
Safety glasses				✓	constantly
Safety glasses with IR protection					as required
Safety shoes	EN ISO 20345, S2	✓	✓		constantly
Safety shoes for CAST (in the production areas with liquid metal)	High, closed safety shoes with quick exit (EN ISO 20345, S3) alternatively EN ISO 20349			✓	constantly
Work clothes	long trousers	✓	✓		constantly
Work clothes	long-sleeved	✓	✓		as required
Protective clothing (Trousers and Jacket)	closed at the front, no rolled-up sleeves at least certified according to: EN ISO 11611:2007 A1 class 1 EN ISO 11612:2007 A1 B1 C1 D2 E3 F1 or D3			✓	constantly
Protective gloves		✓	✓	✓	as required
Hearing protection		✓		✓	as required
Hearing protection			✓		constantly
Winter jacket	at least certified according to: EN ISO 11611:2007 A1 class 1 EN ISO 11612:2007 A1 B1 C1 D3 E3 F1			✓	as required
Dust mask		✓	✓	✓	as required
Silver Hood and Silver Jacket	Protective against heat emissions			✓	during casting
Disposable overall		✓	✓	✓	during dirty work



PPE	Requirement	SER	ROL	CAST	Remarks
Fall protection/restraint system, from 1m height of fall on					
Safety harness	EN 361	✓	✓	✓	as required
Fall impact absorber	EN 355	✓	✓	✓	as required
Sliding safety harness	EN 353	✓	✓	✓	as required
Fall protection device	EN 360	✓	✓	✓	as required
Stop device	EN 795	✓	✓	✓	as required
Lanyard	EN 354	✓	✓	✓	as required
Personal fall protection equipment in aerial working platform					
Safety harness	EN 361	✓	✓	✓	as required
Fall protection device	EN 360	✓	✓	✓	as required
Lanyard	EN 354	✓	✓	✓	As required
Welding					
Apron/jacket		✓	✓	✓	As required
Welding goggles		✓	✓	✓	As required
Full vision helmet, visor		✓	✓	✓	As required
Extractor		✓	✓	✓	As required
O <sub>2</sub> -cutting					
Heat protection suit		✓	✓	✓	As required
Gaiters		✓	✓	✓	As required