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Belgrade Fair
Organization and Technical Division
Electrical Service Department

To the Exhibitors and Electrical Work Contractors at Belgrade Fair Booths and Facilities

## Instructions and Technical Conditions for Electrical Installations Fitting at Belgrade Fair

- 1. The exhibitor booth lessee shall mention in his requirement to the hall supervisor the total connection power of electrical appliances (kW) and the voltage he will use (alternating current 50Hz, 230–240V or 400V). Any requirement for the connection power higher than 20kW shall be reported in writing to Belgrade Fair Electrical Service Department.
- 2. The voltage touch protection system is TN-C-S grounding system.
- 3. The networking to Belgrade Fair electric power network may be carried out only by Belgrade Fair electricians and other authorized companies within the electric power branch engaged by Belgrade Fair for electrical installations fitting.
- 4. Electric power shall be turned off after the working hours of the exhibiting halls/ facilities of the Fair.
- 5. During the preparation works, fair events and any other works, the stipulations of the Occupational Safety Law, as well as the rules of fire and explosion protection from the Fire Protection Law shall be obeyed in a way that the installations and appliances are fitted so that they are not danger for the persons working on them or coming close to them and are not direct hazard of fire causing or environment pollution.
- 6. The electric power supply location is at the end point of Belgrade Fair basic property ownership and the electrical equipment owned by the working connection user.
- 7. All responsibilities and liabilities based upon the fitted electrical equipment, as well as the responsibility for any possible harmful consequences that may be caused by the subject equipment use shall be limited to the electric power supply point connection.
- 8. Belgrade Fair shall not be responsible for any exhibitors' electrical installations and other equipment. Thus, the electric power hand over point for various electrical appliances, signals, car lighting etc. shall be each socket outlet (230–240V / 400V) in a booth installation if Belgrade Fair fitted the electrical installations.
- 9. Any electrical appliances used at Belgrade Fair space heated during their use shall be far from the surrounding areas at the legally specified distance.
- 10. Electric circuits may be carried out only by cables with double insulation (class II) and special attention should be paid that all wires are equally charged in accordance with valid technical regulations and professional rules.
- 11. Only three-wire and five-wire cables with the relevant cross section may be used in accordance with the valid technical regulations, as follows: 1 or 3 phase wires, the neutral (zero) wire in light blue color and the protection wire (grounding) in yellow/green color.

- 12. Any metal mass on which electrical installations are led or may get in touch with electrical energy shall be visibly grounded by special cable with the cross section of not less than 6 sq. mm. (Cu).
- 13. Any metal facilities, such as, for instance, containers, cranes, etc. having on them the executed locations intended for the relevant grounding connection, the exhibitor / electrical works contractor shall ground (connect) in the proper way to the grounding determined by Belgrade Fair Electrical Service Department.
- 14. It is forbidden to put in force any trade fair exhibits and machines with the rotation parts not adequately protected, in order to prevent any staff and visitors injury. Such machines shall have at an accessible place built in and marked proper safety switch for the emergency turn off.
- 15. The electrical works contractor shall inform the booth user or the user of any other space at Belgrade Fair about the position of the emergency turn off switch and demonstrate its operation.
- 16. The cable and wire connections shall be carried out only in the connection and switch boxes, in the main switchboard or in lighting holders.
- 17. The supply (connection) cable to the switchboard at a booth shall have specific wire cross section, defined according to the installed power of electrical appliances at the booth (the minimal allowed cable cross section is 2.5 sq. mm. (mm2)). The cables with PVC insulation, type PP-Y or PP00-Y may be used. The supply cable shall be a complete uninterrupted unit (in one piece), both in electro technical and mechanical meaning.
- 18. All connection points shall be always quite free and easily accessible.
- 19. Typical switchboards (the exhibitors' mobile boards) are used for the electric power main connection at booths, delivered by Belgrade Fair.
- 20. If the exhibitor does use the Belgrade Fair switchboard, he may use his own switchboard, which shall be produced according to the following description:
  - a) The switchboard shall be produced from pickled metal sheet in the protection manufacturing, which prevents direct contact of the parts under voltage. The switchboard shall have the door with hinges and a lock. The switchboard door shall be connected (grounded) with its housing by the protection flexible wire that shall be in yellow/green color.
  - b) The appropriate number of type EZ or EZN fuses shall be in the switchboard. Each fuse shall have the original contact-screw and the fuse insert (cartridge) with the dimensions for the appropriate electric power, according to the electric power consumer supplied through it. Any use of 'patched' fuse cartridges is strictly forbidden. All fuse caps shall have the protection glass covers. Instead of the above mentioned boxes with fuses, the appropriate automatic fuses may be installed, as well.
  - c) The especially marked main switch shall be installed on the outside of the switchboard (with the breaking power of not less than 16A, which may switch off the entire electrical installation at the booth), as well as various other switches (10A for lighting, 16A for connections etc.). All switches shall be GS type, dimensioned according to the electric power consumers and technical regulations.
  - d) The connection terminals shall be VS or RNSS type, with the appropriate cross section toward the wires and their number (quantity) shall be properly coordinated with the number of wires of the electric power consumers connecting to them.

- e) The necessary number of cable inlets (PVC or polyamide) shall be installed on the upper side of the switchboard, in accordance with the number of cables and their cross sections.
- f) If socket outlets are installed at the booths and on the switchboard, they have to be on the wall with protection contact (the so-called "OG Schuko").
- 21. The cables installed from the switchboard and at the booths have to be laid in accordance with the regulations and according to the following technical conditions:
  - a) The cable type PP-Y and PP/J may be used (particularly at the places where more bending is necessary) of the minimal cross section of 1.5 sq. mm (mm2).
  - b) The cables may not be laid free on the floor or where they may be stepped on or damaged in some other way (in such cases they shall be physically protected against possible damage).
  - c) The cables on the route shall be led through the booth metal structure gullies or along the booth metal structure (if there are no gullies or they are inadequately deep) and they shall be fixed by striped clamps (cable straps). The other method of cable leading is on the fireproof surfaces as follows: with distance clamps or through the appropriate metal or fireproof plastic gully boxes. If the distance clamps are used, when the cable is laid horizontally the distance between the distance clamps shall be 25cm and when the cable is laid vertically, this distance shall be 40cm. The highest allowed distance of the distance clamp from the switchbox shall be 10cm. Over various possibly inflammable surfaces (wooden or plastic structures, wall surfaces, ceilings, etc.) all cables shall be led through the laid and fixed metal non-perforated gullies so that they, under the appropriate selection and installation of the complete installation materials and equipment (non-halogen components) cannot cause fire.
  - d) Any cable connections shall be situated in the wall switchboxes or light housings (if its technical characteristics allow this), with the appropriate clamps or connections insulated by the insulation tape. For mutual connecting of several lights/lighting bodies in an electrical circuit, special closed adapters with the switch type socket outlet plug may be used, as well.
- 22. The lights / lighting bodies shall be properly fixed to the booth–components and installed in accordance with SRPS/IEC regulations and according to the following technical conditions:
  - a) The maximal allowed electric power of a lighting electrical circuit shall be 10A.
  - b) All lights / lighting bodies manufactured from electric power conducting materials shall be grounded.
  - c) All light sources shall be in mechanically fully protected housings. The use of bulb fittings E 27, non-protected bulbs with incandescent light or any other non-protected (so-called 'bare') light sources shall not be allowed.
  - d) In the use of the lights with halogen bulbs and LED lights with drivers, the transformers shall be at the distance of not less than 1m from the possibly inflammable materials and surfaces and installed on the fixed, properly elevated above the base profiled metal supports or to the fireproof rock wool base (flammability class A1), fire proofing for 180 minutes, type "Knauf", "Rockwool" and similar ones.
  - e) In order to protect against fire and harmful heat actions, the floodlights (i.e. lighting bodies in general) at exhibition spaces shall be installed to be not less than 1m far from any flammable surfaces and materials, wooden surfaces and items, textile, plastic exhibits, etc.

- f) All lights / lighting bodies shall be turned on and off only by the switch on the switchboard.
- 23. Any electrical appliances at the booth connected to the electrical installation shall have the protection contact (grounding) and adapted to the SRPS/IEC regulations.
- 24. If a user / lessee carries out electrical works at the booth himself, he shall engage authorized experts of electrical engineering branch.
- 25. Each booth shall have its own connection switchboard. It is forbidden to supply electrical connections from a booth that has the connection to any other neighboring booths.
- 26. Extension cords (multiple mobile socket outlets with the cable) for providing with electrical connections instead of the switchboard may not be used. The proper quality extension cord, with the proper connection contacts and grounding, may be used only for the supply to the end users, i.e. various electrical appliances of minor power (computer, monitor, printer, etc.) by direct plugging into the connection on the switchboard or any other socket outlet installed at the booth. Any multiple use of the extension cords, i.e. the connection from one extension cord to another one (s) is forbidden.
- 27. Any portable battery charging at the booths is forbidden.
- 28. Any use of heaters, air flow heaters, ventilators and air conditioners is forbidden.
- 29. In accordance with the fire protection regulations and as a permanent measure by the fire protection police, any electrical appliances and/or main switch at the connected electric power switchboard at a booth/facility/rented space shall be turned off in case of any temporary leaving, as well as after the working hours, by the Work Contractor, Event Exhibitor and Fair Space Lessees.
- 30. If any of the users requires by special demand to have permanent electric power supply (does not comply with the item 4.), he shall hire the appropriate expert who will be present all the time during the event.
- 31. All companies carrying out booth mounting at Belgrade Fair shall leave openings at the places of the connection points for electric power or telephone board as follows:
  - a) The booth panels / walls may not prevent the access to the connection point. However, if this cannot be avoided, an opening shall be cut in the panel and thus provide the undisturbed access. The other way is to have a sliding panel, door or movable curtain at such place.
  - b) If the artificial carpet is installed on the floor, at the section above the connection point three sides shall be cut (in an imagined square) to enable lifting of this section of the artificial carpet, if necessary.
  - c) If a flooring or podium is installed on the floor, the cover shall be visible above the connection point or the cover shall be cut in the podium itself.
- 32. For anything else not included in the present Technical Conditions, the measures stipulated by Technical Regulations and Standards shall be implemented and in this respect generally accepted work principles in the electrical engineering branch.
- 33. Electrical installations and connections not carried out in accordance with the regulations and the above mentioned Technical Conditions, as well as any subsequently carried out and not reported installations and connections shall be turned off from Belgrade Fair electrical network.

Remarks and Instructions that shall be obeyed the electrical work contractors (with the annual contract) hired by Belgrade Fair:

- 1. The booth metal components shall be checked and grounded before connecting to Belgrade Fair electrical network.
- 2. Do not provide electrical connections through the openings in the connection point covers, but only through the cable inlet for such purpose.
- 3. The covers of all connection points shall be closed.
- 4. Only completely proper connecting switchboards may be provided for the users.
- 5. Carry out the optimal distribution of the electrical consumers charge at the booth/facility.
- 6. Make sure that you control the contractors of the electrical installations at the booths not hired by Belgrade Fair (so-called "Third Parties").
- 7. Electrical connections may not be provided at a booth before the electrical installation is completed, the equipment installed and their full control has been carried out.
- 8. Do not provide the connections from the permanent electric power supply, except by the consent in writing of the Electrical Service Department.

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