



EDMS NO.  
**1768012**

REV.  
**1.0**

VALIDITY  
**VALID**

**REFERENCE : NOT REQUIRED**

## HL-LHC Resources request

**Date:** 2017-03-13

**Project/Activity:** WP17.3

**Title Position/Task:** Cooling and ventilation Engineer

### **Description Project:**

The Engineering Department (EN) that provides engineering competencies, infrastructure systems, and technical coordination for the world's largest particle accelerator complex and its experimental facilities.

The Cooling & Ventilation Group (CV), responsible for designing, constructing, maintaining, and operating cooling, ventilation and air conditioning systems and large scale fluid distribution systems for the whole Laboratory, particularly in accelerators' and Experiments' underground areas;

At point 1 and Point 5 of LHC accelerators CERN will build a number of surface buildings and underground premises to supply services for the radiofrequency cavities that will be installed in the LHC tunnel. The EN/CV group shall design and install all the technical infrastructures (cooling and ventilation systems) required to evacuate the heat dissipated by these services (cryogenics, power supply, power cables, etc.).

### **Task:**

- Execute design calculation for component selection (pumps, valves, pipes, ducts, fans, etc.);
- Integrate the selected components in the 3D model of the buildings and underground premises using AutoCAD Revit;
- Create and constantly update the bill of quantity of the installation;
- Contribute to the exchange of information between CV project team and the other teams (civil engineering, electrical engineering, etc.);
- Contribute to the definition and editing of the technical notes of the project and the technical specifications for the tendering phase;
- Contribute to the evaluation of the offers received from bidders.

**Profile:** Master's degree in the field of mechanical engineering, preferably with a specialization in industrial ventilation and/or hydraulics installations, or equivalent

### **Experience:**

- Sizing and design of ventilation installations and their related hydraulic components or cooling systems;
- Selection of related cooling or ventilation equipment and their instrumentation;
- Use of AutoCAD Revit or other similar 3D modelers.
- Spoken and written English or French. Ability to draw up technical specifications in English and to make oral presentations in at least one of the two languages.

**Requester:** EN-CV

**Starting date:** Summer 2017