Building protection against radon risk : measurement, mitigation and prevention

Code stage : CONF20

LEARNING OUTCOMES:

At the end of this training, the learner will be able to:

- Master principles of investigation on existing and new buildings
- Identify causes of radon entry and technical measurements
- Identify approaches on building protection for existing and new buildings
- Knowledge on different protection techniques and material to be used

TRAINING RESPONSIBLE: Bernard COLLIGNAN, Research Engineer on radon risk, CSTB

ATTENDANCE PROFILE

Engineering offices
Architects
Building professionals
Radon professionals
building authorities, radiation protection and public health authorities
All stakeholders interested in building protection

☑ PREREQUISITES

None

TEACHING METHODS

- Methodologic approach
- Case study
- Feedback

EVALUATION

Satisfaction questionnaire

DOCUMENTATION

Training support

ⓘ PRACTICAL INFORMATIONS

Schedule 2020 :

- 29th and 30th October 2020

Duration: 2 days - 14 hours
Place: CSTB Paris
Price: 700 €
Lunch included

YOUR CONTACT

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PROGRAM CONTENT

DAY 1

10h - 11h
Tracy D Gooding, Public Health England - UK

Generalities on radon risk

- Health effect on radon
- Exposure of the population
- Legislation related to the radon issue and public awareness
- Geology and mapping

11h – 18h
Bernard COLLIGNAN, Research Engineer on radon risk, CSTB - France

Radon in buildings

- General points, sources and entry routes of radon
- Causes of radon entry
- Basics of radon measurements in buildings
- Generalities on building
  - Typologies
  - Basements
  - Air permeability
  - Ventilation
- First approach on building protection
  - General principles
  - Preventive actions for new buildings
  - Corrective actions for existing buildings
- Examples of corrective actions and efficiency of the different solutions
- Radon and energy efficient buildings

Exercises on existing buildings

- Working group for case studies on recommendations of corrective actions

DAY 2

8h30 - 11h30
Connie Box, TerraNordic Company - Sweden

Radon in existing buildings

- Principles for investigation of a building depending on radon source
- Mitigation techniques among different sources:
  - Soil/Ground sources
  - Houses with crawl space
  - Building material sources
  - Water sources
- Material and products for mitigation techniques

13h-16h
Martin JIRANEK, Faculty of Civil Engineering, University of Prague – Czech Republic

Radon in new buildings

- Principles of designing preventive measures
- Design and execution of radon-proof membranes
- Design and execution of sub-slab depressurization
- Air gaps depressurization
- Protecting houses with crawl spaces
- Ventilation measures
- Materials/products applicable to anti-radon measures