



Montage projet Européen,



Ministère
de l'Ecologie,
du Développement
durable
et de l'Energie

18/11/2015



Towards an integrated approach of concrete structures durability design and monitoring

The service life duration of concrete structures is an important parameter of the sustainability of these structures. The lack of durability for reinforced concrete buildings and current structures involves high repair and maintenance costs and reduces the service life. **The crack control provisions are presently inappropriate** for large structures. As a consequence, there is a critical demand for consistent rationally-based provisions both for new structures and for old ones that need to be rejuvenated.

Moreover, for a growing number of large concrete industrial facilities, there is a **combined demand for durability and tightness**. Adequate provisions are desirable for optimized steel and concrete consumption and rationally-based safety assessment.

- ▶ **Couplage fissuration – durabilité**
 - Relié aux évolutions de la réglementation
 - Bcp d'équipes possibles en Europe et en France (trop?)
- ▶ **Couplage fissuration – confinement**
 - Sujet plutôt spécifique nucléaire (peut-être aussi réservoirs)
 - ANR MACENA (en partie)
 - Sujet plus original >> moins d'équipes

Cadre H2020

- Réunion préparatoire le 15/09/2015

► Organisation d'un workshop IFSTTAR 15/09/2015

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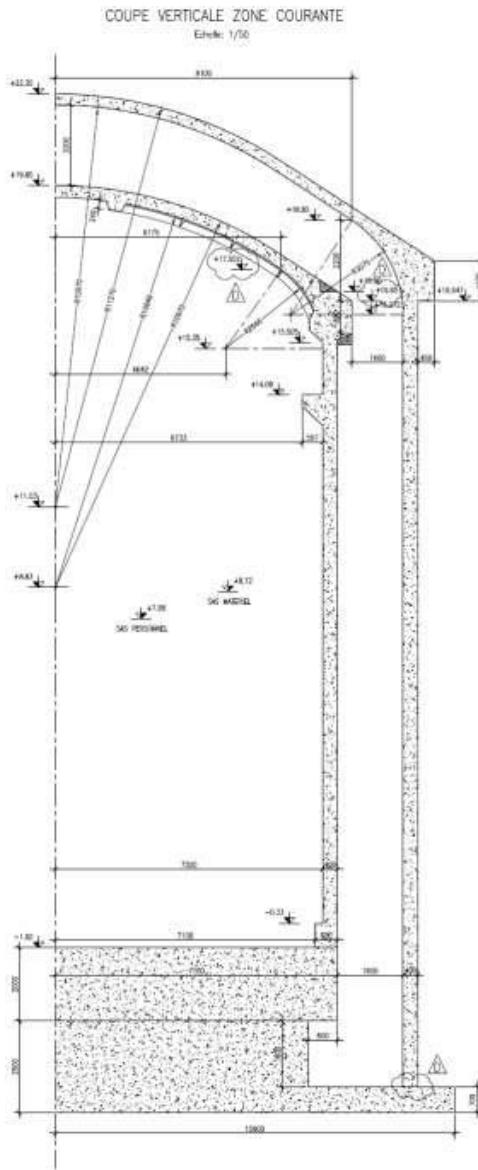
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Maquette et Benchmark VerCors



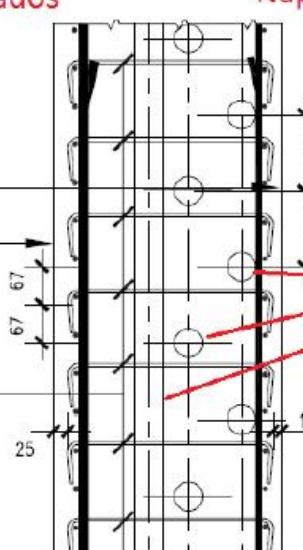
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R=7700
R=7300
R=7147

Epingles H45
maille courante

Nappe intrados



Nappe Extrados





Chantier maquette VerCORS
Avancement semaine 14



► Lancement d'un benchmark international

<http://fr.amiando.com/EDF-vercors-project.html>



VeRCoRs Project VeRCoRs NEWS Benchmark VeRCoRs 2015 Pre-Registration Restricted Access

Preliminary stage
Note that the restitution for the preliminary stage is due for the **30th of April**.

Benchmark 2015 - Description

Benchmark and workshop
VeRCoRs
Prestressed concrete at early age and aging
EDF proposes in 2015 a first benchmark dedicated to early-age, mechanical and leaktightness behaviors.

For this first benchmark, the **themes** are:

- Theme 1 : early age
- Theme 2 : containtion history
- Theme 3 : leakage

All the details are in the [document](#) below. Any question at contact.vercors@sfen.org

The teams have the choice to contribute to all or part of the benchmark.

The **key dates** are:

Contributions: Key dates

January - August 2015 > Benchmark Period
April 30, 2015 > Preliminary Report
August 31, 2015 > Final Report
January 31, 2016 > Complementary work before Workshop
February 2016 > Workshop

Benchmark Pre-Registration

[Click here](#)

