Quick Look Travel Report

Dates of Travel:
July 10-23, 2009

Location:
Brussels, Belgium
Issy-les-Moulineaux, France

Organizations:
ICONE 17 (Brussels, Belgium)
NEA/CSNI (Issy-Les-Moulineaux, France)

Subject Matter:
- International Conference on Nuclear Engineering (ICONE17) in Belgium.
- Program Review group (PRG) and Management Board (MB) for PWR Zirc Fire Project France.

Purpose:
- To give a presentation in ICONE17 as well as attend sessions involving the use of CFD in Nuclear Reactor Safety applications.
- To participate in first Program Review Group and Management Board meeting for the PWR Zirc fire Project.

Objectives and Desired outcome:
In ICONE 17,
- Made a presentation on CFD Best practice Guidelines in a Horizontal Dry cask.
- Attended presentations and discussions on the use of CFD in Nuclear Reactor safety applications.
- Discussed with CFD users how are CFD best practice guidelines applied in Nuclear Reactor Safety applications.

In the PRG and MB of the PWR Zirc Fire project:
- PRG chair (Techy Zsolt from Hungary) was elected.
- Temporary MB chair (Herranz Luis from Spain) was elected.
- Detailed technical presentation and explanation of the purpose and the steps of the program was presented by USNRC (Ghani Zigh) and Sandia Lab principal investigator (Eric Lindgren) for both the BWR Zirc fire and PWR Zirc fire.
- Deliverables were discussed.
- Sensitivity of the data was discussed.
- Schedule and budget for 2009 and 2010 were discussed.
- Next meeting is scheduled in Albuquerque, NM in April of 2010.

Results Achieved:
As expected, issues enumerated in the objective section were discussed and finalized. (See Summary of the Trip section)

Summary of the Trip:
In ICONE, in Belgium, I made a presentation entitled "A Computational Study of Natural Convection Heat Transfer in Concentric Horizontal Cylinder Annulus". In This presentation, calculations using CFD best practice guidelines was used and compared with available experimental data. Additionally, in ICONE17, I attended all the sessions that involved the use of CFD. There were 14 sessions involving the use of CFD in Nuclear Reactor Safety applications. In all these sessions, CFD best practice guidelines were discussed.

In France, I participated in the first PRG and MB meeting for the PWR Zirc fire experiment. The experiment will be taking place in Sandia National Laboratory (SNL), Albuquerque, NM. In the first day of the meeting, PRG met. In the meeting, Techy Zsolt from Hungary was elected as the PRG chair. USNRC lead (Ghani Zigh) and SNL Principal Investigator (Eric Lindgren) gave a detailed technical presentation on the PWR Zirc fire experiment as well as The BWR Zirc fire experiment. Additionally, detailed plan as well as deliverables for 2009 and 2010 for the PWR Zirc experiment was discussed. Finally, the next PRG meeting was agreed to be held in Albuquerque, NM in April of 2010.

In the second day, the management board meeting was held. Herranz Luis from Spain was elected as the MB temporary chair. Then, the PRG program for 2009 and 2010 was approved. Also, the status of the participant's signatures was discussed and finalized. Finally, the schedule and budget for 2009 and 2010 was discussed.

Next Steps:
The PRG and MB for the PWR Zirc fire experiment will meet in Albuquerque, NM in April 2010 to discuss the status and the future activities of the experiment.

Policy Issues or Other Items of Commission Interest:
None

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