

June 15, 2010

MEMORANDUM TO: Jennifer L. Uhle, Director
Division of Systems Analysis
Office of Nuclear Regulatory Research

FROM: Ghani Zigh */RA/*
Division of Systems Analysis
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SUBJECT: TRIP REPORT FOR OECD/CSNI SPONSORED SPECIAL
COMPUTATIONAL FLUID DYNAMICS GROUP MEETINGS IN
PARIS, FRANCE

On May 10-12, 2010, I traveled to Paris, France to attend a meeting of a Special Computational Fluid Dynamics (CFD) Group sponsored by the Committee on the Safety of Nuclear Installations (CSNI) part of the Organization for Economic Cooperation and Development (OECD). This group was formed when the work of three CFD writing groups (WG1, WG2 and WG3) was concluded. Writing Group 1 (WG1) produced a report entitled "Guidelines for Use of CFD in Nuclear Reactor Safety Application". The work was concluded in December 2006. Writing Group 2 (WG2) produced a report entitled "Assessment of CFD Codes for Nuclear Reactor Safety (NRS) Problems". The work was concluded in December 2007. Writing Group 3 (WG3) will produce a report entitled "Extension of CFD Codes to two-Phase Flow safety Problems. The work will be concluded in September 2010. The specific goals of these three Writing Groups were to:

- Create best-practice guidelines for the use of single phase CFD in NRS applications;
- Develop an assessment matrix for use of single-phase CFD in NRS applications;
- Define extensions to CFD for use in two-phase applications and the experimental foundation required.

The proposal from the Special CFD group was to:

- Create, update and maintain a web-based centre of expertise on CFD for NRS.
- Provide central organization for further workshops in CFD4NRS series, following those at GRS Garching, Germany in 2006 and CEA Grenoble, France 2008.
- Acts as a central organizing body for NRS benchmarking activities.

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Three main topics were discussed in this meeting:

- Current CFD WIKI pages from WG1.
- Planning for the next CFD Workshop CFD4NRS-3, to be hosted by the US Nuclear Regulatory Commission in September 2010.
- Synthesis and finalization of the first CSNI validation exercise (T-junction).

The content of this trip report is not likely to be of interest to the Commission.

Enclosures:

1: Trip report

2: Meeting's Agenda

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