Overall Workplan for Phase III

The National Research Council Canada (NRC) invited the North American roofing community to a 'think tank' meeting to answer, *What are the top three research needs for SIGDERS?* The meeting was held on September 15, 1999 at the Sheraton Centre, Toronto, Canada, as a pre conference event to the North American Conference on Roofing Technology. Based on the participated members input, main objectives of the SIGDERS program was identified. On June 14 - 15, 2000, Phase III opening meeting was held at NRC. In the meeting, these draft objectives were discussed and modified by the Steering Committee. Task Groups were formed to develop exact deliverables for the Phase III. In the combined Task Group meetings, members agreed that the first year of the Phase III should focus on room temperature testing on mechanically attached systems.

Objective 1: Collect design data on the wind resistance of roofs with flexible membrane.

- Investigate the effect of Vapour/Air Barrier on wind uplift resistance
- Investigate the effect of fastener placement, location, length and penetration
- Develop procedures to evaluate the minimum compressive strength of substrates

Objective 2: Develop a mechanism to disseminate the SIGDERS dynamic test method.

- Initiate dialogue with North American testing agencies and organizations for the benefit of the SIGDERS dynamic test method.
- Engage in discussion with FM for the inclusion of the SIGDERS Load cycle in the 4474 during the ANSI canvassing process.
- Participate in the codification process such that the SIGDERS test method can be referred in the building codes/ standards.

Objective 3: Document a good practice guide for wind resistance of roofs with flexible membrane.

- Prepare a state of the art by scrutinizing the existing documents, practice guides, manufacture specifications and association manuals
- SIGDERS completed more than 100 system investigations for wind uplift resistance. Using these data, develop analytical tool to forecast system rating.
- Create a roof wind design web based database.

Objective 4: Evaluate wind uplift resistance of roofs at elevated temperatures.

- Evaluate wind uplift resistance of fully bonded systems in dynamic environment.
- Examine the effect of heat conditioning on wind uplift resistance of roof assemblies.

Only trial runs will be carried out at elevated temperatures for wind uplift resistance. Specific tasks for the objective 4 will be discussed during the second year of the Phase III.