Submitted by the Chair of the Side Impact Dummies Group Informal document **GRSP-51-30** (51st GRSP, 21–25 May 2012, agenda item 5 (b))

The Chair of the Side Impact Dummies group provided GRSP with the following report on the 8th meeting of the group, held in London, UK on March 21, 2012.

At the 8th meeting, Humanetics gave a presentation on the status of pending material and design changes to both dummies. Some of these changes are required because recent or pending environmental regulations, particularly in Europe, have made materials previous used unavailable. Other changes are design changes requested by users based on issues that have arisen during testing. The pelvis in particular will be undergoing a number of changes, including changes to the bone and flesh materials and design changes due to issues of rib interference. Humanetics believes they have suitable replacement materials, but is awaiting finalization of design changes in many respects. Overall, the pending changes could result in delays for many months. It was noted however that EuroNCAP would like Humanetics to "freeze" the design of the 50th by June so they can proceed with their plans to begin using that dummy.

Despite the number of pending changes, the group is confident that biofidelity and R&R won't be affected and that this testing will not need to be repeated. Concerns remain regarding the possibility of improperly using the shoulder as a load path, and the possible need for evaluation of the shoulder.

Major remaining issues to the readiness of the 50th dummy are:

- The drawing package and user's manual are not complete. Humanetics indicated these can be completed approximately 2 months after the dummy is "frozen," but availability of these will require negotiation with both Humanetics and ISO.
- Additional work is needed on the pelvis certification procedure. The group also discussed whether there was a need for a certification procedure for single ribs.
- The seating procedure is not determined. ISO expects to finish the work in April.
- Further discussion on advanced instrumentation for multi-axis thorax deflection. 1-D deflection measures appear to underestimate the actual thorax deflection.
- Recommendations for IARVs. The ISO working group gave a presentation on their current recommendations, but the final decision will not be made until the end of 2012

The 5th TEG and the 50th Working Group both plan additional meetings in April and May. The June IWG meeting has been cancelled, but the chairs of these two groups have been asked to provide a status update to the Pole Side Impact IWG at its June meeting.