

**From:** "Moeller, Dr. Hendrik" <MoellerH@kp.thyssenkrupp.com>  
**To:** "Eric Jameson, DNR" <ejameson@mail.dnr.state.ga.us>  
**Date:** Monday, 13 September, 1999 13:06:38  
**Subject:** Drop test for the CNA

Dear Mr. Jameson,

Anja Gill called me with a question concerning a drop test for the MEN.

I assume you mean a drop test to assure that no radioactive material leaves the MEN (or the tube) after it has been dropped from a certain height.

We did drop tests, but the background was more to test for handling and transport properties of the MEN. So in order to come to safe (from a working point of view) transport and handling instructions, the MEN did fall from table height (40 - 60 cm). In fact it once dropped down from my hands also - and still worked fine. As you can see from the pictures of the MEN16R and especially the MEN16G, the SODITRON tube is part of a very rugged enclosure. Of course we not want people to throw the MEN around (there are connectors and electronic parts inside the MEN (resistors capacitors). We send the MEN around the world and it would surely be a very bad thing for our clients if the MEN would arrive with a defect on site.

Although the radiation safety concern is of course very important, the breaking of electronic parts inside (making the tube unusable), would be very bad from a reliability point of view.

These drop tests were however not performed with a formal protocol because the background was different. So I cannot send you a protocol from SODERN dealing with a formal drop test. But again, as you can see from our manual, even if the MEN would be completely destroyed (what is not possible by dropping it - steel enclosure), the parts could be triated. But the tritium is in the form of a solid, so you would have to pick up the pieces using gloves. This is described in the radiation safety chapter.

I hope this answer is OK for you.

Sincerely,

Hendrik Möller

**CC:** "Gill, Anya" <GillA@polysius.com>