187 Effect of temperature on chronic Ni toxicity to Daphnia magna along four generations C.S. Pereira, Ghent University; C. Janssen, University of Ghent / Laboratory of Environmental Toxicology and Aquatic Ecology; R. Blust, University of Antwerp; K. De Schamphelaere, Ghent University (UGent) / Applied Ecology and Environmental Biology. Ecological risk assessment (ERA) is based on single generation ecotoxicological tests that are usually performed at a standard temperature. A previous in-house study indicated that temperature had a significant effect on chronic nickel (Ni) toxicity to Daphnia magna. Previous multigenerational studies performed at one standard temperature (20°C) showed that Ni toxicity increases along generations. Therefore, our goal was to investigate the effect of temperature on chronic Ni toxicity to D. magna along four generations. A multigenerational toxicity test was performed with D. magna exposed to Ni along four generations at 15, 20 and 25°C. Prior to actual Ni exposure, the organisms were acclimated during two generations to the temperature treatments. At the time of exposure, each generation started with neonates (< 24h) collected from the 3rd brood of at least three different mothers. Each generation continued until the organisms in control treatments released the 5th brood. Corroborating the previous inhouse study our results showed that temperature had a significant effect on chronic Ni toxicity to *D. magna* in the 1st generation. The estimated 10% effect concentration on reproduction per individual female untill the 5^{th} brood (EC) for Ni increased 20-fold between 15 and 25°C on F0. We observed that when *D. magna* was exposed to Ni treatments ? EC s (calculated for F0) chronic Ni toxicity did not increase along generations. This was common to the three temperature treatments. For Ni treatments ? EC s (calculated for F0) chronic Ni toxicity varied along generations b^{10} a consistent trend was not observed. At relevant concentrations for ERA (i.e. EC) chronic Ni toxicity at 15, 20 and 25° C did not increase along generations. However, for F0 the EC increased 21 fold with the increase of temperature from 15 to 25°C which indicates the need to integrate temperature as a factor in metals risk assessment.