Radiated Emission for vehicle DC charging

Dependency to charging current?
DC charging for different currents vertical polarisation

Results of a measurement campaign with a BEV (Battery Electrical Vehicle) during a development phase in 3 m distance with Pk-detector. Limits according to ECE R10 (Pk- and QP).
DC charging superposition of all results vertical polarisation

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Summary: radiated emission Results vs. charging current

Result:
For direct DC-charging of a battery, there is no relevant dependency for radiated emission to the charging current. The differences are neglectable in comparison to the measurement uncertainties.

Proposal:
Change requirement from charge current $I > 80 \% I_N$ to $I > 20 \% I_N$ for radiated emission measurements in UN ECE R10