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RED-100 status update

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The RED-100 is a two-phase emission detector created to investigate coherent elastic neutrino scattering off xenon nuclei. Its active volume has a cylindrical shape with sizes of ˜ 40 cm. The total mass of liquid xenon in the detector equals 200 kg. The detector performance provides sensitivity down to a single ionization electron while allows operation at a ground surface environment. In this talk, the current status of the RED-100 detector is presented. During the engineering run, the electron lifetime of several milliseconds was achieved. Technical decisions aimed on reduction of a single electron noise are discussed. Ongoing work on construction of low-background shield is presented. The plan of the experiment at Kalinin Nuclear Power Plant is given.

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