

The invention relates to the field of measurement technology, and specifically to methods for monitoring the filling of railway tanks with liquid products, petroleum, petroleum products, petrochemical products, and food products, and may be used for monitoring the level to which railway tank cars are filled during the loading of liquid products itself in order to avoid (prevent) the overfilling or underfilling of tank cars. A method for monitoring the level to which railway tank cars are filled during the loading of liquid products is characterized in that, prior to beginning to fill a tank, a calculated tank loading level ( $H_1$ ) is determined on the basis of the calculated temperature ( $t^{\circ}_{\text{calculated}}$ ) of a product to be loaded, the calculated loading level ( $H_1$ ) is marked with the help of a load level monitoring device, which device includes a rod having a bar which is mounted at the calculated loading level ( $H_1$ ), and which device is positioned within the tank. The next step involves visually monitoring the moment at which the level of the product to be loaded reaches the calculated loading level ( $H_1$ ) marked by the bar. During loading of the product, a thermal imaging device is used for measuring the actual temperature ( $t^{\circ}_{\text{curenm}}$ ) of the product to be loaded, wherein the calculated tank loading level ( $H_1$ ) is adjusted if the actual temperature ( $t^{\circ}_{\text{curenm}}$ ) increases or decreases relative to the calculated temperature ( $t^{\circ}_{\text{calculated}}$ ). A device for monitoring the level to which railway tank cars are filled during the loading of liquid products includes, positioned inside a tank, a rod with a bar, which bar is mounted at the calculated tank loading level ( $H_1$ ), and a thermal imaging device, intended for measuring the temperature of the product to be loaded. The technical result consists in increasing tank loading precision by monitoring the actual temperature of a product to be loaded, and adjusting a calculated loading level if the temperature changes relative to the calculated temperature.