We consider the singular boundary value problem

\[-r(x)y'(x) + q(x)y(x) = f(x), \quad x \in \mathbb{R}\]

\[\lim_{|x| \to \infty} y(x) = 0,\]

where \(f \in L_p(\mathbb{R}), \ p \in [1, \infty] \ (L_\infty(\mathbb{R}) := C(\mathbb{R}))\), \(r\) is a continuous positive function on \(\mathbb{R}\), \(0 \leq q \in L_1^\text{loc}\). A solution of this problem is, by definition, any absolutely continuous function \(y\) satisfying the limit condition and almost everywhere the differential equation. This problem is called correctly solvable in a given space \(L_p(\mathbb{R})\) if for any function \(f \in L_p(\mathbb{R})\) it has a unique solution \(y \in L_p(\mathbb{R})\) and if the following inequality holds with an absolute constant \(c_p \in (0, \infty)\):

\[\|y\|_{L_p(\mathbb{R})} \leq c_p \|f\|_{L_p(\mathbb{R})}, \quad f \in L_p(\mathbb{R}).\]

We find minimal requirements for \(r\) and \(q\) under which the above problem is correctly solvable in \(L_p(\mathbb{R})\).