pp-definability is *NEXPTIME*-complete

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It is known (Friedman, unpublished; Bergman, Jeudes and Slutzki, IJAC '99) that the clone membership problem for finite algebras is *EXPTIME*-complete. The analogous *relational clone membership problem* for finite relational structures, also called $\exists$-INVSAT in the theoretical computer science community, is the problem which accepts as input a finite set $\mathcal{R}$ of finitary relations on a finite set A, together with another relation s on A, and asks if s is in the relational clone $\mathrm{Inv}(\mathrm{Pol}(\mathcal{R}))$ generated by $\mathcal{R}$. We show that this problem is *NEXPTIME*-complete.