1026-03-159 **Alexandre Rambaud*** (alexandre.rambaud@umh.ac.be), Equipe de Logique–Université Paris 7, and Institut de Mathématiques, Avenue du Champ de Mars, 6, 7000 Mons, Belgium.

O-minimality and quantifier elimination in some non quasi-analytic classes. Preliminary report.

I extend the results of [$R1$] which deal with classes of restricted real quasi-analytic functions, to classes of non quasi-analytic functions.

More precisely, in [$R1$] only classes of functions, C^∞ on a whole compact box of $\mathbb{R}^n$ and quasi-analytic on this box, were considered. Now, we study some well-closed classes of functions, C^∞ on an open bounded box, continuous on the closure of this box and which satisfy a condition of non-degeneration (equivalent to quasi-analycity in the former case), expressed via model theory. For example, certain of these classes come from solutions of differential equations.

I obtain, like in [$R1$], results of o-minimality (which generalize for example those of [$vdDS$]) and of quantifier elimination, which imply in particular, preparation theorems in the considered classes.

[$vdDS$]: L. van den Dries and P. Speissegger, "The real field with convergent generalized power series", Trans. Amer. Math. Soc., 350 (1998), 4377-4421.

[$R1$]: A. Rambaud, "Quasi-analycité, o-minimalité et élimination des quantificateurs", Ph.D. thesis, Université Paris 7, 2005. (Received February 25, 2007)