Let $D \subseteq E$ be an extension of commutative rings with identity, $I$ be a nonzero proper ideal of $D$, $(\Gamma, \leq)$ be a strictly totally ordered monoid such that $0 \leq \alpha$ for all $\alpha \in \Gamma$ and $\Gamma^* = \Gamma \setminus \{0\}$. Let $D + \left[ E^{\Gamma^* \leq} \right] = \{ f \in \left[ E^{\Gamma \leq} \right] \mid f(0) \in D \}$ and $D + \left[ I^{\Gamma^* \leq} \right] = \{ f \in \left[ D^{\Gamma \leq} \right] \mid \text{the coefficients of nonconstant terms of } f \text{ belong to } I \}$. In this talk, we give some conditions for the rings $D + \left[ E^{\Gamma^* \leq} \right]$ and $D + \left[ I^{\Gamma^* \leq} \right]$ to be Noetherian or to satisfy the ascending chain condition on principal ideals. (Received September 11, 2013)