RECOVERY OF AMMONIUM SULFATE FROM WASTE SOLUTIONS PRODUCED IN AIR PURIFICATION PROCESSES

Innovations and Benefits - The decomposition of organic matter contained in the biocells of compost plants produces ammonia. Usually this pollutant is removed by treating the air coming from the biocells through a chemical washing, producing an ammonium sulfate waste solution. A method has been developed to give value to this waste. This method reduces the water consume transforming the waste in a product with constant chemical and physical properties. This product can be used in other productive processes.

This process is low-cost, easy to achieve and it doesn't need of specialized operators.

Uses -

- Exploitation of the ammonia waste produced during air treatments
- Reduction of water consumption
- Exporting of the method to other air washing systems

Past and Present Activities - Laboratory and pre-pilot tests to verify the efficiency of the method in terms of water consumption and quality of the obtained products.

Test to export the method to waste coming from similar air treatment processes.





	RESEARCH TO PROVE FEASIBILITY			TECHNOLOGY DEMONSTRATION			SYSTEM TEST, LAUNCH & OPERATIONS	
BASIC TECHNOLOGY RESEARCH		TECHNOLOGY DEVELOPMEN		PMENT	SYSTEM/SUBSYSTEM DEVI		ELOPMENT	
TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
TECHNOLOGY READINESS LEVEL								



Italian National agency for new technologies, Energy and sustainable economic development www.enea.it Territorial and Production Systems Sustainability Department

Resource Efficiency Division

Integrated waste, wastewater and raw materials management technologies Laboratory Contact: Massimiliana Pietrantonio - massimiliana.pietrantonio@enea.it