

ISO/TR 14049:2012-06 (E)

Environmental management - Life cycle assessment - Illustrative examples on how to apply ISO 14044 to goal and scope definition and inventory analysis

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	General	1
3	Examples of developing functions, functional units and reference flows	3
3.1	Context of ISO 14044	3
3.2	Overview	3
3.3	Identification of functions	5
3.4	Selection of functions and definition of functional unit	5
3.5	Identification of performance of the product and determination of the reference flow	6
3.6	Additional examples	6
4	Examples of distinguishing functions of comparative systems	6
4.1	Context of ISO 14044	6
4.2	Overview	7
4.3	Identification and selection of functions	8
4.4	Equivalence of reference flows	9
4.5	Adjusting for performance differences	10
5	Examples of establishing inputs and outputs of unit processes and system boundaries ..	11
5.1	Context of ISO 14044	11
5.2	Overview	12
5.3	Determining the product system's unit processes and their boundaries	12
5.4	Initial collection of data at each unit processes	15
5.5	Initial estimate of material and energy flows	16
5.6	Applying decision rules	18
5.7	Inputs, outputs and system boundaries established	19
6	Examples of avoiding allocation	19
6.1	Context of ISO 14044	19
6.2	Overview	20
6.3	Example of allocation avoidance by dividing the unit process to be allocated into two or more processes	21
6.4	Example of allocation avoidance by expanding the boundaries for comparison of systems with different outputs	21
7	Examples of allocation	23
7.1	Context of ISO 14044	23
7.2	Overview	24
7.3	Description of the examples	24
8	Example of applying allocation procedures for recycling	27
8.1	Context of ISO 14044	27
8.2	Overview	28
8.3	Description of the examples	29
9	Examples of conducting data quality assessment	38

9.1	Context of ISO 14044	38
9.2	Overview	39
9.3	Data requirements to establish the specific listing of sites	40
9.4	Requirements to characterize the quality of the data	41
10	Examples of performing sensitivity analysis	43
10.1	Context of ISO 14044	43
10.2	Overview	43
10.3	Description of the examples	44
	Bibliography	48