



### **Environmental Product Declaration**

Date of Issue: December 18, 2024

Date of Expiration: December 18, 2029

### **Product Category Rules**

BIFMA PCR for Tables, UNCPC 3812, version 1 Product Sub-Category: Occasional Table EN 15804+A2 ISO 14025/14040/14044

### **Functional Unit**

1 m<sup>2</sup> maintained for a 10-year period (2.87 Rockwell Unscripted Tall Tables)

This EPD was not written to support comparative assertions. EPDs based on different PCRs or different calculation models may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results due to and not limited to the practitioner's assumptions, the source of the data used in the study, the specifics of the product modeled, and the software tool used to conduct the study.





### **Environmental Product Declaration**

### Rockwell Unscripted Tall Table

Program Operator	NSF Certification LLC 789 N. Dixboro, Ann Arbor, MI 48105 www.nsf.org		
Manufacturer Name and Address	Knoll North America 1235 Water St East Greenville, PA 18041		
Declaration Number	EPD11018		
Declared Product and Functional Unit	Rockwell Unscripted Tall Table (product code UTTT601842HH) Functional Unit: 1 m <sup>2</sup> of physical floor space maintained for 10 years		
Reference PCR and Version Number	BIFMA PCR for Tables: UNCPC 3812, version 1 EN 15804+A2		
Product's intended Application and Use	Office Table		
Product RSL	10 years		
Markets of Applicability	North/South America		
Date of Issue	December 18, 2024		
Period of Validity	5 years from date of issue		
EPD Type	Product Specific		
Intended Audience	Business-to-Business, Business-to-Consumer		
Range of Dataset Variability	N/A		
EPD Scope	Cradle to Grave		
Year of reported manufacturer primary data	2021		
LCA Software and Version Number	Sphera LCA for Experts (fka GaBi) 10.9		
LCI Database and Version Number	Sphera Managed LCA Content (fka GaBi) Database, 2024.1		
LCIA Methodology and Version Number	TRACI 2.1, IPCC AR6, EN 15804 EF 3.1		
The PCR review was conducted by:	Review Panel Chaired by Dr. Thomas Gloria		
This declaration was independently verified in accordance with ISO 14025: 2006, the BIFMA PCR for Tables, and EN 15804+A2  □ Internal  □ External	Jack Geibig - EcoForm jgeibig@ecoform.com  Jack Heiling		
This reference life cycle assessment was conducted in accordance with ISO 14044 and the reference PCRs:	Lydia Schreiber - WAP Sustainability Consulting lydia@wapsustainability.com		
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Jack Geibig - EcoForm jgeibig@ecoform.com  Jack Huliz		
References	BIFMA PCR for Tables: UNCPC 3812. Version 1 (2021) EN 15804+A2 (2019) ISO 14025/40/44 (2006) MillerKnoll Background Report for LCA/EPD Creation Tool v1.0		

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of Products using EPD information shall be based on the product's use and impacts at the building level, and therefore EPDs may not be used for comparability purposes when not considering the building energy use phase as instructed under this PCR. Full conformance with the PCR for Products allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

#### **Product Description**

Designed by Knoll and David Rockwell

Unscripted is anything but unplanned. It is the culmination of years of research—by Knoll and Rockwell, independently and together—about the way work is truly done today.

Work increasingly takes places elsewhere. At a coffee shop or lunch counter, walking down the street, sitting on a park bench or perched on a bar stool and, overall, the urge to demarcate or defend individual territory is giving way to a desire for community. Whether alone or with colleagues, planned or the result of happenstance, people are often productive at unexpected moments and in unforeseen settings.



This document relates to Rockwell Unscripted tall tables. Rockwell Unscripted Tall Table at bar height (42") with an 18" deep and 60" wide tapered edge HPL top, a drink rail, and aluminum legs is covered in this document. Note that the image above depicts wooden legs and differs from the configuration modeled for the LCA.

#### **Company Description**

MillerKnoll is a collective of dynamic brands that comes together to design the world we live in. Together we are redefining modern design for the 21st century and changing the world for the better. As MillerKnoll, we form an unparalleled platform from which to imagine a more sustainable, caring, and beautiful world for everyone.

Knoll, a brand within MillerKnoll, uses modern design to connect people to their work, their lives, their world. Since 1938, we have been recognized internationally for creating workplace and residential furnishings that inspire, evolve, and endure.

Today, our commitment to modern design, our understanding of the nature of work, and our dedication to sustainable design have yielded a unique portfolio of thoughtful products that respond and adapt to changing workplace and residential needs.

#### **Our Sustainability Goals**

To help improve the health of our planet and communities, we plan to:

#### Reduce carbon footprint

Reduce the carbon footprint from our products and operations by 50 percent and aim to reduce the carbon footprint of our suppliers.

#### Design out waste

Stop using single-use plastics and substantially reduce all types of waste.

#### Source better materials

Use 50 percent or more recycled content and purchase materials that are responsibly and sustainably produced.

#### Supplier Support

At MillerKnoll, we are committed to working closely with our suppliers to reduce our collective impact on the environment. We encourage our suppliers to minimize their operations' environmental impacts and require they assist us in decreasing our facilities' environmental effects.

#### **Manufacturing Locations**

- · East Greenville, PA, United States
- · Muskegon, MI, United States
- · Toronto, ON, Canada

Backed by Knoll's 10-year warranty.

#### Design for the Environment Criteria

Our commitment to corporate sustainability naturally includes minimizing the environmental impact of each of our products. Our Design for the Environment team applies environmentally sensitive design standards to both new and existing Miller Knoll products, and goes beyond regulatory compliance to thoroughly evaluate new product designs in key areas:

# MillerKnoll

#### **Chemical Management**

We are focused on removing chemicals of concern from our products and avoiding their use in our new products, leading to the development of the MillerKnoll Restricted List of Chemicals.

#### Disassembly

Can we take products apart at the end of their useful life, to recycle their materials?

#### Recyclability

Do the materials contain recycled content, and more importantly, can the materials be recycled at the end of the product's useful life?

#### Life Cycle Assessment (LCA)

Have we optimized the product based on the entire life cycle?

#### **Product Environmental Data**

	Value	
Recycled Content %	23%	
Post-Consumer	7%	
Pre-Consumer	16%	
Recyclability (max %) *	92%	

\*This recyclability rate is the maximum amount of the product that is recyclable, based on availability of recycling facilities and ability of the product to be disassembled. Note that, per the requirements of the PCR, the End-of-Life results presented in this EPD were calculated using the US EPA's recycling rates within the 2018 Municipal Solid Waste Report for parts that can be disassembled.

#### **Environmental Certifications**

BIFMA level™ 3 FSC® Certified

#### Packaging

Returnable packaging blankets are available for some products. Packaging in the LCA does not include blankets and was calculated to be disposed upon installation per regional disposal rates as required by the PCR.

#### Improper Disposal

MillerKnoll provides disassembly guidelines and encourages our end customers to either recycle or donate the products at the end-of-life. This can be accomplished through our dedicated takeback initiative (rePurpose) or by engaging with a nearby community recyclers. In situations where recycling isn't a viable option, we advise adhering to jurisdictional requirements for either incineration or landfill based on your local regulatory requirements.

Additional information, including installation and recycling instructions, can be found at https://www.knoll.com/design-plan/product/rockwell-unscriptedtall-tables

### **MATERIAL DECLARATION**

#### **Functional Unit**

The functional unit is one m2 of physical floor space, maintained over a 10-year period, including packaging materials used for the final assembled product. One table is 0.697 m<sup>2</sup>. The assumed RSL is 5 years, so one replacement is required over the 10-year period. To meet the functional unit, 2.87 units of Rockwell Unscripted Tall Table are required.

#### Reference Flow and Product Specifications

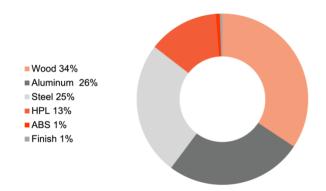
One Rockwell Unscripted Tall Table (product number UTTT601842HH) Table at bar height (42") with an 18" deep and 60" wide tapered edge HPL top, a drink rail, and aluminum legs is covered was modeled for this EPD. This table is determined to be a representative product based on sales of the variations. The results in this EPD are only representative of this configuration. While the exact configuration purchased may be slightly different, it is expected to have impacts within 10% of this representative configuration. The results presented on the subsequent pages consist of the weighted average impacts of Rockwell Unscripted Tall Tables made at all sites. The product composition table to the right is relevant for products made in all manufacturing facilities covered.

#### System Boundary

Cradle-to-Grave

#### **Content Declaration**

The table to the right details the materials included in a specific SKU for the product made in the United States, summarized in the chart below. In order to achieve the functional unit, 2.87 products are required.

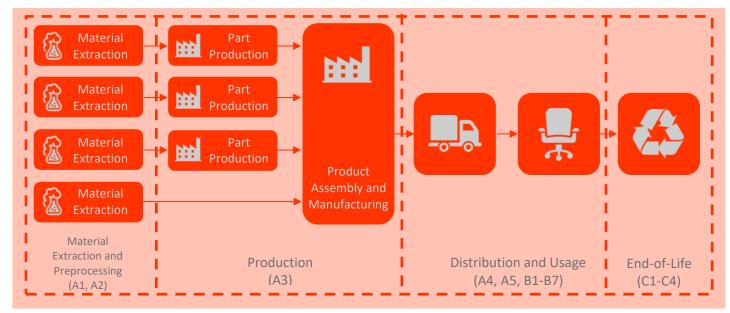


Material	Mass (kg)	Mass (%)	Resource
Wood	25.5	34%	Virgin Renewable
Aluminum	19.2	26%	Virgin Non-renewable and Recycled Content
Steel	18.8	25%	Virgin Non-renewable and Recycled Content
High Pressure Laminate (HPL)	9.9	13%	Virgin Renewable and Non-renewable
Acrylonitrile Butadiene Styrene (ABS)	0.6	1%	Virgin Non-renewable
Finish	0.4	1%	Virgin Non-renewable
Other Materials	0.23	<1%	Virgin Non-renewable
Tota	I 74.75	100%	
Dookoging*	Mana (kg)	Maga (9/)	Bookuraa

Packaging*	Ma	ıss (kg)	Mass (%)	Resource
Corrugate		8.93	85%	Recycled Content
EPS		1.40	13%	Virgin Non-renewable
PE Film		0.17	2%	Virgin Non-renewable
PP Banding		0.06	<1%	Virgin Non-renewable
	Total	10.55	100%	

\*Returnable/reusable shipping blankets also available. Packaging in the LCA does not include blankets and was calculated to be disposed upon installation per regional disposal rates as required by the PCR.

This product contains no substances prohibited by the regulations applicable at the time of EPD publication. It respects the restrictions on use of hazardous substances as defined in the REACH directive EC 1907/2006.



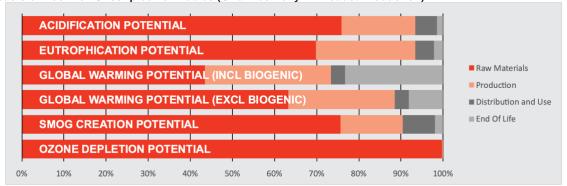
#### Life Cycle Impact Assessment - BIFMA PCR for Weighted Average Production in North America

Environmental Impacts were calculated using the GaBi software platform. Impact results according to the BIFMA PCR have been calculated using IPCC AR6 GWP<sub>100</sub> and TRACI 2.1 characterization factors. Additionally, LCI indicators have been calculated for primary energy, water usage, renewable and non-renewable resources used as energy carriers and materials, and recovered energy. Results presented in this report are for 1 m<sup>2</sup> of floor space maintained for 10 years.

The results presented here are for Rockwell Unscripted Tall Tables (UTTT601842HH). Additionally, the results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.

LCA Impact Category	Unit	Total	Raw Material Production	Product Production	Distribution and Retail	End of Life
Acidification Potential	kg SO2 eq	3.99E+00	3.03E+00	6.96E-01	2.06E-01	5.87E-02
Eutrophication Potential	kg N eq	4.12E-01	2.88E-01	9.74E-02	1.83E-02	8.81E-03
Global Warming Potential Including Biogenic Carbon	kg CO <sub>2</sub> eq	1.31E+03	5.67E+02	3.91E+02	4.46E+01	3.03E+02
Global Warming Potential Excluding Biogenic Carbon	kg CO <sub>2</sub> eq	1.31E+03	8.25E+02	3.30E+02	4.46E+01	1.06E+02
Photochemical Ozone Creation Potential (Smog)	kg O₃ eq	6.17E+01	4.67E+01	9.11E+00	4.72E+00	1.22E+00
Ozone Depletion Potential	kg CFC-11 eq	4.67E-06	4.65E-06	1.43E-08	1.13E-13	3.35E-13
LCI Impact Category	Unit	Total	Raw Material Production	Product Production	Distribution and Retail	End of Life
Primary Energy Demand (Renewable and Non- Renewable)	MJ (net cal value)	2.07E+04	1.28E+04	7.19E+03	6.14E+02	1.58E+02
Fresh Water Consumption	kg	7.13E+00	2.97E+00	3.94E+00	8.60E-02	1.34E-01
Renewable Primary Resources Used as Energy Carrier	MJ (net cal value)	3.26E+03	2.81E+03	4.55E+02	0.00E+00	0.00E+00
Renewable Primary Resources Used as Materials	MJ (net cal value)	4.35E+03	2.62E+03	1.68E+03	2.55E+01	1.44E+01
Non-renewable Primary Resources Used as Energy Carrier	MJ (net cal value)	6.38E+02	4.25E+02	2.13E+02	0.00E+00	0.00E+00
Non-renewable Primary Resources Used as Materials	MJ (net cal value)	1.64E+04	1.01E+04	5.50E+03	5.89E+02	1.44E+02
Recovered Energy	MJ (net cal value)	1.58E+02	0.00E+00	1.53E+01	0.00E+00	1.43E+02

#### Life Cycle Impacts of Rockwell Unscripted Tall Tables (Grid Electricity in Product Production)



#### **APPENDIX: EN 15804+A2**

Additionally, results have been calculated using LCIA methodologies for core environmental impact categories specified in EN 15804+A2, as well as LCI indicators required by EN15804+A2 reference package EF 3.1. The results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks. Values in the scenario tables below are reported per functional unit, which is 1 m<sup>2</sup> of physical floor space covered for 10 years. To fulfill this functional unit, 2.87 units of product are required.

#### LCA Scenario Details

_	unctional	 - 5

Parameter	Value
Declared Unit	1 m <sup>2</sup>
Number of Occupants	1
Reference Service Life Required	10 years
Biogenic Carbon in Product	39.1 kg C
Biogenic Carbon in Packaging	14.1 kg C

#### Reference Service Life

Parameter	Value per functional unit
Reference Service Life	5 Years
Design Application Parameters	Use as indicated in product brochure and warranty
Declared Product Properties	Properties given in product description on page 4
Indoor environment	Typical office and home environment
Use conditions	Typical office and home use

#### A4: Transport to the Building Site

Parameter	Value per functional unit
Transportation Type	Diesel Truck
Fuel Consumption	0.621 L/km
Distance	2,253 km
Capacity Utilization	61%
Capacity utilization volume factor	1
Weight of product (kg)	215
Volume (m <sup>3</sup> )	2.13

#### A5: Installation in the Building

Parameter	Value per functional unit
Packaging Waste Produced	30.3 kg
Installation Assumptions	No product waste, Installed with hand tools.

#### B1: Use

Parameter	Value per functional unit	
There are no emissions related to the expected use of this product.		

#### B2: Maintenance

Parameter	Value per functional unit
Maintenance Process	No maintenance is expected for this product
Maintenance cycle	0
Ancillary Materials for maintenance (kg/cycle)	0
Waste materials resulting from maintenance (kg)	0
Net fresh water consumption during maintenance (m3)	0
Energy input during maintenance (kWh)	0

#### B3: Repair

Parameter	Value per functional unit
Repair process	No repairs are expected for this product
Inspection process	No repairs are expected for this product
Repair cycle (#/RSL)	0
Ancillary materials (kg)	0
Waste materials from repair (kg)	0
Net freshwater consumption during repair (m3)	0
Energy input during repair (kWh)	0

#### B4: Replacements

Parameter	Value per functional unit
Replacement cycle (#/RSL)	1
Energy input during replacement (kWh)	0
Exchange of worn parts during the products life cycle (kg)	0

#### B5: Refurbishment

Parameter	Value per functional unit
Refurbishment process	No refurbishment is expected for this product
Refurbishment cycle (#/RSL)	0
Energy input during refurbishment (kWh)	0
Material input for refurbishment (kg)	0
Waste material resulting from refurbishment (kg)	0

#### B6 and B7: Use of energy and Use of Water

Parameter	Value per functional unit						
Ancillary materials (kg)	0						
Net freshwater consumption (m <sup>3</sup> )	0						
Power output of equipment (kW)	0						
Characteristic performance n/a							
The table does not utilize electricity to adjust its height.							

#### C1-C4: End-of-Life

Parameter	Value per functional unit
Weight of Product Collected (kg)	215
Weight to Recycling (kg)	17.0
Weight to Energy Recovery (kg)	39.5
Weight to Landfill (kg)	158
Distance to Recycling (km)	50
Distance to Energy Recovery (km)	100
Distance to Landfill (km)	50

### Life Cycle Stages

The results are provided according to the following life cycle modules:

Module	Description
A1	Product Stage: Raw Material Supply
A2	Product Stage: Transport
A3	Product Stage: Manufacturing
A4	Construction Process Stage: Transport
A5	Construction Process Stage: Installation
B1	Use Stage: Use
B2	Use Stage: Maintenance
В3	Use Stage: Repair
B4	Use Stage: Replacement
B5	Use Stage: Refurbishment
B6	Operational Energy Use
B7	Operational Water Use
C1	EOL: Deconstruction
C2	EOL: Transport
C3	EOL: Waste Processing
C4	EOL: Disposal
D	Benefits beyond system

Life Cycle Impact Assessment - EN 15804+A2 (EF 3.1) for Weighted Average Production in North America

#### EN 15804+A2 Results - 1 m<sup>2</sup> physical floorspace maintained for 10 Years

Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
GWP <sub>Total</sub> [kg CO <sub>2</sub> eq]	4.79E+02	2.23E+01	2.76E+01	0.00E+00	0.00E+00	0.00E+00	6.53E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.54E-01	2.02E+01	1.03E+02	-5.51E+01
GWP <sub>Fossil</sub> [kg CO <sub>2</sub> eq]	5.72E+02	2.23E+01	1.51E+00	0.00E+00	0.00E+00	0.00E+00	6.08E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.53E-01	8.15E+00	3.13E+00	-5.45E+01
GWP <sub>Biogenic</sub> [kg CO <sub>2</sub> eq]	-9.34E+01	9.24E-03	2.61E+01	0.00E+00	0.00E+00	0.00E+00	4.49E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.30E-04	1.20E+01	1.00E+02	0.00E+00
GWP <sub>LULUC</sub> [kg CO₂ eq]	1.36E-01	1.25E-02	3.32E-04	0.00E+00	0.00E+00	0.00E+00	1.58E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.13E-04	1.75E-03	6.99E-03	-1.96E-02
ODP [kg CFC 11 eq]	2.21E-06	2.83E-12	2.65E-13	0.00E+00	0.00E+00	0.00E+00	2.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.05E-14	1.81E-12	6.18E-12	-6.29E-07
AP [Mole H+ eq]	2.02E+00	1.10E-01	1.60E-03	0.00E+00	0.00E+00	0.00E+00	2.16E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03	6.24E-03	1.93E-02	-1.44E-01
EP, freshwater [kg PO <sub>4</sub> eq]	4.16E-03	1.14E-04	3.27E-05	0.00E+00	0.00E+00	0.00E+00	4.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.84E-06	1.06E-06	3.00E-04	-1.20E-03
EP, marine [kg N eq]	5.13E-01	5.50E-02	6.05E-04	0.00E+00	0.00E+00	0.00E+00	5.78E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.11E-04	1.96E-03	7.04E-03	-4.18E-02
EP, terrestrial [Mole N eq]	5.06E+00	6.07E-01	7.06E-03	0.00E+00	0.00E+00	0.00E+00	5.78E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.96E-03	2.76E-02	6.72E-02	-3.59E-01
POCP [kg NMVOC eq]	1.39E+00	1.13E-01	1.55E-03	0.00E+00	0.00E+00	0.00E+00	1.55E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	5.25E-03	3.68E-02	-1.49E-01
Resource Use, mineral and metals* [kg Sb eq]	6.48E-05	3.00E-06	3.23E-08	0.00E+00	0.00E+00	0.00E+00	6.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.47E-08	-3.48E-08	1.62E-07	-6.52E-06
Resource Use, fossil* [MJ]	8.14E+03	2.94E+02	5.43E+00	0.00E+00	0.00E+00	0.00E+00	8.50E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E+00	1.26E+01	4.64E+01	-7.16E+02
Water use* [m³ world eq]	8.73E+01	1.32E+00	1.08E-01	0.00E+00	0.00E+00	0.00E+00	9.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.29E-02	2.28E+00	3.67E-01	-6.82E+00

GWP=Global Warming Potential; LULUC=Land Use and Land Use Change; ODP=Ozone Depletion Potential; EP=Eutrophication Potential; AP=Acidification Potential; POCP=Photochemical ozone creation potential

<sup>\*</sup>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

#### Resource Use and Waste - 1 m<sup>2</sup> physical floorspace maintained for 10 years

Impact Category	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
PERE [MJ]	3.79E+03	1.28E+01	3.28E-01	0.00E+00	0.00E+00	0.00E+00	3.81E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-01	1.15E+00	5.42E+00	-5.37E+02
PERM [MJ]	2.15E+03	1.28E+01	3.28E-01	0.00E+00	0.00E+00	0.00E+00	2.17E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-01	1.15E+00	5.42E+00	-4.74E+02
PERT [MJ]	5.94E+03	2.55E+01	6.57E-01	0.00E+00	0.00E+00	0.00E+00	5.98E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.36E-01	2.30E+00	1.08E+01	-1.01E+03
PENRE [MJ]	8.14E+03	2.94E+02	5.43E+00	0.00E+00	0.00E+00	0.00E+00	8.51E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E+00	1.26E+01	4.64E+01	-7.17E+02
PENRM [MJ]	3.19E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E+02	0.00E+00							
PENRT [MJ]	8.46E+03	2.94E+02	5.43E+00	0.00E+00	0.00E+00	0.00E+00	8.83E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.34E+00	1.26E+01	4.64E+01	-7.17E+02
SM [kg]	1.76E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E+01	0.00E+00							
RSF [MJ]	0.00E+00														
NRSF [MJ]	0.00E+00														
FW [m <sup>3</sup> ]	3.45E+00	4.30E-02	2.67E-03	0.00E+00	0.00E+00	0.00E+00	3.56E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.07E-03	5.28E-02	1.04E-02	-2.06E-01
HWD [kg]	3.47E-05	3.99E-08	6.81E-10	0.00E+00	0.00E+00	0.00E+00	3.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.94E-10	2.40E-09	8.58E-09	-6.82E-07
NHWD [kg]	1.30E+02	2.90E-02	1.98E+00	0.00E+00	0.00E+00	0.00E+00	2.06E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.24E-04	6.52E+00	6.81E+01	-1.68E+00
RWD [kg]	4.57E-01	7.63E-04	3.03E-05	0.00E+00	0.00E+00	0.00E+00	4.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-05	3.19E-04	5.78E-04	-2.83E-02
HLRW [kg]	5.23E-04	9.03E-07	3.20E-08	0.00E+00	0.00E+00	0.00E+00	5.24E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-08	3.74E-07	5.16E-07	-3.83E-05
ILLRW [kg]	4.57E-01	7.62E-04	3.03E-05	0.00E+00	0.00E+00	0.00E+00	4.59E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-05	3.18E-04	5.78E-04	-2.82E-02
CRU [kg]	0.00E+00														
MFR [kg]	3.45E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.60E+01	0.00E+00	0.00E+00	0.00E+00	2.15E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER [kg]	1.39E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E+01	0.00E+00	0.00E+00	0.00E+00	2.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE [MJ]	7.63E+00	0.00E+00	3.60E+00	0.00E+00	0.00E+00	0.00E+00	7.91E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.94E+01	1.85E+01	0.00E+00
PM [Disease Incidence]	2.93E-05	1.12E-06	1.61E-08	0.00E+00	0.00E+00	0.00E+00	3.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-08	8.97E-08	1.98E-07	-1.58E-06
IRP**( [kBq U235 eq]	4.13E+01	6.47E-02	3.30E-03	0.00E+00	0.00E+00	0.00E+00	4.14E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.61E-03	2.76E-02	8.22E-02	-1.77E+00
ETP-fw* [CTUe]	2.85E+03	2.30E+02	5.67E+00	0.00E+00	0.00E+00	0.00E+00	3.13E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.73E+00	9.14E+00	3.28E+01	-2.34E+02
HTP-c* [CTUh]	3.59E-07	5.71E-09	1.00E-10	0.00E+00	0.00E+00	0.00E+00	3.67E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-10	3.49E-10	1.19E-09	-2.02E-07
HTP-nc* [CTUh]	4.07E-06	9.08E-08	3.18E-09	0.00E+00	0.00E+00	0.00E+00	4.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-09	2.90E-08	1.29E-07	-2.15E-07
SQP* [no unit]	1.95E+03	5.74E+01	6.38E-01	0.00E+00	0.00E+00	0.00E+00	2.02E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.43E+00	2.19E+00	5.87E+00	-4.38E+02

PERE=Renewable Primary Energy from Non-Materials; PERM=Renewable Primary Energy from Materials; PERT=Total Renewable Primary Energy from Non-Materials; PENRM=Non-Renewable Primary Energy from Materials; PENRT=Total Non-Renewable Primary Energy; SM=Use of Secondary Materials; RSF=Use of Renewable Secondary Fuels; NRSF=Use of Non-Renewable Primary Energy; SM=Use of Secondary Materials; PENRT=Total Non-Renewable Primary Energy Secondary Fuels; FW=Net Use of Fresh Water; HWD=Hazardous Waste Disposed; NHWD=Non-Hazardous Waste Disposed; HLRW=High Level Radioactive Waste; FW=Net Use of Fresh Water; HWD=Hazardous Waste Disposed; NHWD=Non-Hazardous Waste ILLRW=Intermediate- and Low-Level Radioactive Waste; CRU=Components for Reuse; MFR=Materials for Recycling; MER=Materials for Energy Recovery; EE=Exported Energy; PM=Particulate Matter; IRP=Ionizing Human Radiation; ETP-fw=Eco-toxicity freshwater; HTP-c=Human toxicity - Cancer; HTP-nc=Human toxicity - Noncancer; SQP=Land use related impacts / soil quality

<sup>\*</sup>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

<sup>\*\*</sup>This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

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