

TEMPLATE

DEVIATION REQUEST FORM

PUBLICATION DATE 11.04.2021

Version 5.0

A. To be completed by Gold Standard

1 Decision

1.0 | Date - 09/02/2023

1.1 | Decision

The deviation request is not approved.

The justification provided by the project developer is not enough to extend the fixed 10-year crediting period for another 5 years.

1.2 | Is this decision applicable to other project activities under similar circumstances?

No

B. To be completed by the Project Developer/Coordinating and Managing Entity and/or VVB requesting deviation (Submit deviation

request form in Microsoft Word format)

2 | Background information

Deviation Reference Number	DEV_336		
Date of decision	09/02/2023		
Precedent (YES/NO)	NO		
Precedent details	NA		
Date of submission	28/10/2022		
Project/PoA/VPA	Project	ID - GS2898	
	🗆 PoA	ID – GSXXXX	
	□ VPA	ID – GSXXXX	
Project/PoA/VPA title		d cook-stoves in Embu County,	
	Kenya		
Date of listing	06/06/2014		
GS Standard version applicable	2.2		
Date of transition to GS4GG (if applicable)	2019		
Date of transition to Gold Standard from another standard (e.g. CDM) (if applicable)	Not applicable		
Date of design certification/inclusion (if applicable)	03/03/2015		
Location of project/PoA/VPA	Kenya		
Scale of the project/PoA/VPA	 □ Microscale □ Small scale ⊠ Large scale 		
Gold Standard Impact Registry link of the project/PoA/VPA	https://registry.goldstandard.org/projects/details/5 08		
Status of the project/PoA/VPA	 □ New □ Listed □ Certified design ⊠ Certified project 		
Title/subject of deviation	Request for extension of fixed 10 years crediting period for another 5 years		
Specify applicable rule/requirements/methodolog	 Para 5.1.1 (f) of GOLD STANDARD FOR THE GLOBAL GOALS "PRINCIPLES & REQUIREMENTS" Version 1.2 Published October 2019 		

• Para 101.1 (b) of GOLD STANDARD FOR THE		
GLOBAL GOALS "GHG EMISSIONS REDUCTION &		
SEQUESTRATION PRODUCT REQUIREMENTS"		
version 2.1 published on 24/02/2022		
Start date End date		
Contact person name: Sarah Megahed		
Email ID: smeasure-com Email ID: smeasure-com		
Organisation: Livelihoods Fund		
Project participant: Yes \boxtimes No \Box		
Yes □ No ⊠		
If yes;		
VVB name:		
VVB Staff name(s):		
Yes 🗆 No 🖂		

3 Deviation detail

3.0 | Description of the deviation:

Guidance Use the space below to describe the deviation and substantiate the reason for requesting deviation from applicable rules/requirements. Please include all relevant information in support of the request. You are requested to follow the principles for requesting deviations, given in the <u>Deviation Approval Procedure/</u><u>Design Change Requirements.</u>

3.0.1 | Deviation detail (to be completed by Project developer):

1. Requirement to be follow as per Para 5.1.1 (f) of GOLD STANDARD FOR THE GLOBAL GOALS "PRINCIPLES & REQUIREMENTS" Version 1.2 Published October 2019:

Requirements The Activity Reauirements and/or Product governs Renewals the maximum number of Design Certification allowed specific project types. In the absence of anv such for stated Requirement, a Project is limited to one Renewal (i.e., maximum 10 years certification).

- 2. Requirement to be follow as per Para 101.1 (b) of GOLD STANDARD FOR THE GLOBAL GOALS "GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS" version 2.1 published on 24/02/2022:
 - **a.** Gold Standard Projects are eligible to claim GSVERs for no more than: The maximum Certification Renewals/Cycles (i.e., Crediting Period) as stipulated in the relevant Activity Requirements OR
 - **b.** A maximum of one Certification Renewal Cycle (i.e., Crediting Period of 10years) in the absence of the Activity Requirements

As per section C of the registered PDD (ver 4.3 dated 17/02/2020), the project has fixed 10 years crediting period which started on 16/04/2013 and will end on 15/04/2023. Now the project wishes to deviate from the aforesaid paras and Project Developer would like to submit a deviation request for extension of fixed 10 years crediting period of the project for another 5 years i.e., up to 15/04/2028.

Brief Project Description:

The objective of the **GS2898** "**Hifadhi Improved cook-stoves in Embu County**, **Kenya**" project is to make efficient cookstoves affordable and available to low-income rural households across Embu County, Republic of Kenya. Thus, this project aims at manufacturing and distributing improved cookstoves (ICS), called Hifadhi stoves that <u>save about 60% of fuel wood</u> in comparison to traditional "three stone" stoves. The first stove under the project was distributed on 16/04/2013.

Approximately 90% of rural low-income homes in Kenya use the "three stone" cooking stove, popularly known as the traditional stove. The use of traditional stoves has negative impacts at different levels, both social and environmental. Indeed, the combustion of the non-renewable fraction of woody biomass of the cooking fuel generates Greenhouse Gases (GHG) and as a substantial amount of wood is needed, increasing deforestation. Concerning the social level, large amounts of smoke are released when cooking with a traditional stove, which causes health hazards such as respiratory illnesses and vision loss. This project aims to mitigate these multiple impacts by introducing energy efficient Hifadhi cookstoves.

The Hifadhi stoves will reduce greenhouse gases emissions by allowing households to use less wood whose accessibility has continued to be expensive and scarce in most parts of the country. Besides reduced carbon emissions, the Hifadhi cookstoves bring multiple benefits to the stove users, such as:

• Improved environmental conditions:

o Reduction of the use of non-renewable biomass from Kenyan forest, fostering biodiversity

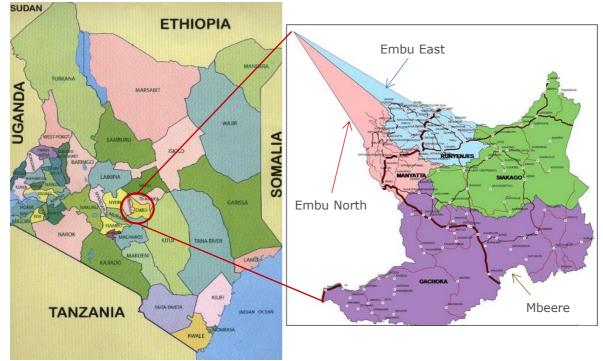
o Reduction of indoor air pollution (carbon monoxide and particulate matter), reducing exposition for children and mothers and reducing child pneumonia, respiratory diseases and cancer 6 associated with open fire mode of cooking • Improved social and economic conditions:

o The project will reduce the amount of money and time spent obtaining wood fuel, especially for children and mothers, the same money can be channeled to other activities like buying food, clothes, paying for medical bills, etc...

o The project will bring local employment to rural areas, through distribution, training and monitoring of the efficient stoves, thus reducing poverty.

Project Location:

The project geographic location is within the Embu County and in line with the GPS coordinates of Embu County (Latitude: 0°31′52″ S; Longitude: 37°27′02″ E). All the stoves are distributed within Embu County in Kenya.



Methodology Applied:

The project followed Gold Standard "Technologies and Practices to Displace Decentralized Thermal Energy Consumption – 11/04/2011 v1" methodology. It is a Large-Scale project.

Distribution Status:

60,000 Hifadhi stoves have been distributed to 60,000 households in Embu County, Kenya.

Crediting Period:

As per section C of the registered PDD (ver 4.3 dated 17/02/2020), the project has a fixed 10 years crediting period which started on 16/04/2013 and will end on 15/04/2023.

Usage Surveys conducted previously to determine the Hifadhi Stove usage:

Usage surveys have been conducted in all the previous monitoring periods. The usage rate achieved in previous surveys are as follows:

Vintage/Age Group	MP7 (2020)	MP6 (2019)	MP5 (2018)	MP4 (2017)	MP3 (2016)	MP2 (2015)	MP1 (2013- 14)
2013	90.14%	98.59%	94.44%	96.90%	97.96%	99.51%	99.24%
2014	83.87%	100.00%	94.29%	100.00%	99.31%	97.20%	99.39%
2015	94.20%	93.28%	97.14%	98.60%	93.46%	99.34%	NA
2016	94.83%	92.54%	100.00%	99.40%	98.40%	NA	NA
Usage Rate	91.33%	95.63%	96.70%	98.50%	96.89%	99%	99.28%

Overall, the usage surveys conducted for the period 2013 to 2020 show that more than 90% of households use Hifadhi stoves.

Current Usage Surveys & Usage Rate:

PP (Climate Pal) has also conducted usage surveys for the current monitoring period i.e., MP8 (01/01/2021 to 31/12/2021). The usage survey for MP8 was conducted from 13/02/2022 to 18/02/2022. The usage rate achieved in the current usage survey is as follows:

Usage Rate MP8						
Vintage/Age Group	Number of stoves surveyed	No. of Hifadhi users using stove more than 1h30mins a day	% of Hifadhi users using stove more than 1h30mins a day (stoves considered in use)	Usage Rate in line with Good Practice' Monitoring Requirements of Usage Rate Guideline	Vintage Wise Stoves distributed (Nos.)	Weighted Average Usage Rate (%)
2013	86	85	98.84%	90.00%	17,771	
2014	37	36	97.30%	90.00%	8,632	90.00%
2015	82	77	93.90%	90.00%	18,357	90.00%
2016	79	72	91.14%	90.00%	15,240	
Average			95.29%	90.00%		

Other parameter results achieved during current MP8 usage survey:

- 95.29% of households use the Hifadhi Stove for more than 1h30 mins per day (Usage Rate)
- 97.89% of households are likely to recommend the Hifadhi Stove to others
- 97% of households are satisfied with the repair and replacement policy of Hifadhi Stove
- 97% of households confirmed air quality improvement, chest pain improvement, burns improvement, eye irritation improvement and headache improvement since using the Hifadhi Stove
- 98% of households confirmed suffering less from cuts and shortness of breath since using the Hifadhi Stove
- 85% of households confirmed that the Hifadhi Stove cooks faster and 75% of households confirmed its good portability

A Dedicated Team

Climate Pal regularly meets with staff and beneficiaries to ensure continuous training, raise awareness about climate change, and to conduct capacity building events such as stress management, financial planning for their staff. Below are some pictures of the trainings conducted in 2021:

• Field Team Training and Supervision: Climate Pal undertakes training workshops every year for Field Officers to undertake user surveys, whereby objectives and protocols are reviewed



• End user training and follow up visits: continuous monitoring undertaken by Field Officers and Ambassadors ensures that end users understand how to best use their stove, following the training during the sale of the cookstove. All monitoring visits are documents in the Hifadhi Monitoring Tool and on paper at Climate Pal offices.



• **Awareness campaigns:** Beyond monitoring visits, Climate Pal conducts awareness campaigns on the importance of climate change, how the improved cookstove helps flight climate change, and how best practice in use ensures a most optimal use of the stove.





MBEERE SOUTH SUB-COUNTY: 30/09/2021

Tree Seedlings Distribution

Moreover, as part of the Hifadhi-Livelihoods cookstove project, Climate Pal also distributes tree seedlings to the project's beneficiaries. The objectives of the tree planting program are threefold. First, the aim is to create a community of households fighting against deforestation. Second, Climate Pal strives to distribute seedlings to at least 80% of the project's beneficiaries, and for the beneficiaries to receive at minimum three seedlings of mix nature (fruit tree and wood trees). Lastly, although the carbon sequestered by these trees is not measured as part of the project, this activity should be verifiable, quantifiable and long-standing.

Since the beginning of the project Climate Pal has distributed 66,657 tree seedlings to its beneficiaries and to local institutions such as schools. In total the project aims to distribute 144,000 tree seedlings.

Project Performance Field Tests performed in current MP 8:

• PP has also performed Kitchen Performance Test (KPT) for the 8th monitoring period in February 2022. The analysis of the current KPT shows that the Hifadhi stove saves 8.070 kg/day of wood per household.

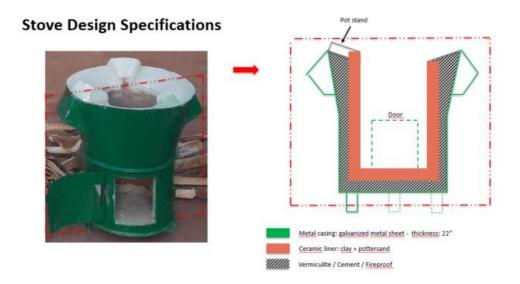
Other Sustainable Development Goals Achieved in current MP 8:

- 259,191 tCO₂e has been avoided by the project
- \sim 696 KES (Kenya Shilling) average saving reported per households per month from use of Hifadhi Stove
- 25 full time jobs have been created by the project
- 159 people were trained
- The project developed a "Hifadhi Cooperative" a table banking service for personal loans for its employees

About the Hifadhi Stove:

Manufacture Specifications: The project stove is composed of an outer iron steel part, and an inside ceramic liner which is made from high quality clay material, with a

mix of vermiculite, fireproof, and cement between. Firewood is introduced from the bottom of the stove in a combustion chamber; the ceramic liner is designed to have a rocket (straight) type of the outlet and uses a principle of surface area/volume ratio. The stove design specification is as follows:



Water Boiling Test (Laboratory Testing): The average thermal efficiency of the Hifadhi Stoves distributed is 24.9 %; it has firewood savings of about 60%. This was tested through the Water Boiling Test (WBT) conducted by Kenyatta University's independent laboratory, following the Water Boiling Test Protocol V 3.0.

Operational Life Expectancy of Hifadhi Improved Woodstoves: As per the testing conducted by Kenyatta University, the institution confirmed that the current improved design of Hifadhi stove demonstrated high efficiency and robustness. Moreover, the test also highlighted that the stove requires only need based replacement or repair. The screenshot of the letter provided by Kenyatta University is below:



Stove Repair and Replacement Policy (Stove Maintenance): Climate Pal commits to ensuring the maintenance of the distributed stoves throughout the project period through a diligent repair and replacement policy whereby beneficiaries can have their stove repaired or replaced at no cost on a need basis. Climate Pal keeps continuous record of repaired and replaced cookstoves. The continuous repair of the stove has a positive impact on the stove usage rate. The number of stoves repaired and replaced from 2013 to 2021 is given below:

Monitoring Period	Number of replacements	Number of Repairs
2013-2014	2	563
2015	85	2,226
2016	652	395
2017	1,244	905
2018	2,000	1,285
2019	1,772	1,319
2020	1,919	1,758
2021	2,960	578

EcoAct and Livelihoods Fund visit the project at least twice a year and regularly meet with beneficiaries as well as conduct audits and trainings. Recently representatives from

Livelihoods Fund, and the EcoAct team visited the Hifadhi Project Site with Climate Pal from 20/09/2022 to 30/09/2022, the summary of the site visit is as follows:

- Beneficiaries and project staff are aware the project is soon coming to an end; thus they have repeatedly asked the EcoAct team to extend the project as beneficiaries use the stoves daily and rely on them to use less firewood, save time and money, reduce health risk due to unclean cooking.
- Beneficiaries in the Embu region do not have access to other technologies that could replace the Hifadhi stove. Moreover, beneficiaries do not have the knowledge about where and how to purchase a similar stove on their own. In addition, even if they did possess the know-how, they do not possess the funds to do so. The Hifadhi stove is sold to beneficiaries at a subsidized price of 300 KES instead of 860 KES at present¹.
- The Hifadhi-Livelihoods project provides beneficiaries with free stove repairs and replacements. At the end of the project lifetime, beneficiaries will be allowed to keep their stoves, however they will no longer be able to access free repairs or replacements. Consequently, after a few years many will not be able to continue using their stove as they will not be able to afford repairs and replacement and will not possess the materials to conduct such activities on their own.
- The Hifadhi-Livelihoods has created a network of dedicated staff who are familiar with the beneficiaries and assist them with their needs, thus extending the project lifetime will allow this staff to continue following and guiding beneficiaries on the best clean cooking practices.
- Beneficiaries even argue that there is a need for more stoves in their communities, neighbors and newly-weds have been asking how they could get a stove.

To conclude, project developer hopes the above seems acceptable to explain the reason for request for extension of another 5 year of crediting period for the project GS2898 "Hifadhi Improved cook-stoves in Embu County, Kenya".

Project developer wishes to convert the fixed 10 years crediting period to 5 years, renewable twice crediting period (total 15 years) for the project GS2898 "Hifadhi Improved cook-stoves in Embu County, Kenya". With the deviation approval the crediting period end date of the project will be 15/04/2028.

Project developer believes that it has no impact on project integrity and that no other change is required in project design.

¹ At the beginning of the project in 2013, the stove only cost 680 KES, then 700 KES now since 2020 it cost 860 KES. The price is increasing due to inflation in material cost and manpower.

3.0.2 | VVB opinion (to be completed by VVB, if applicable):

Guidance *If required by SustainCERT or Gold Standard for this particular deviation, please add here the VVB's opinion.*

Not applicable.

3.1 | Assessment of the deviation:

Guidance Use the space below to describe how the deviation complies with the requirements, and, where applicable, the accuracy, completeness and conservativeness is ensured. Please include all relevant information in support of the request.

3.1.1 | Deviation assessment (to be completed by Project developer):

The project is deviating from **para 5.1.1 (f) of GOLD STANDARD FOR THE GLOBAL GOALS "PRINCIPLES & REQUIREMENTS" Version 1.2 Published October 2019** and **para 101.1 (b) of GOLD STANDARD FOR THE GLOBAL GOALS "GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS" version 2.1 published on 24/02/2022**. The project has fixed 10 years crediting period which starts on 16/04/2013 and will end on15/04/2023. Hence, this deviation is being submitted in line with section C of the registered PDD (ver 4.3 dated 17/02/2020), which determines the project crediting period duration.

The project developer confirmed that the deviation is well complying with all the other GS4GG requirements and ensured the accuracy, completeness, and conservativeness as laid down by the GS4GG. The project developer is only requesting to consider the extension of fixed 10 years crediting period for another 5 years i.e., up to 15/04/2028.

Further as per the Principle **4 of GOLD STANDARD FOR THE GLOBAL GOALS COMMUNITY SERVICES ACTIVITY REQUIREMENTS ver 1.2, 2019:** New Projects may seek Certification and receive Issuance of Gold Standard Certified Impact Statements or Products for a maximum of two Design Certification Renewal Cycles i.e., a total of 15 years issuance.

As all the new community-based project have 5 years, renewable twice (i.e., total 15 years) crediting period, hence it is also requested to convert the GS2898 "Hifadhi Improved cook-stoves in Embu County, Kenya fixed 10 year crediting period to 5 years, renewable twice (i.e. total 15 years) crediting period that will be end on 15/04/2028.

Please note that the extension of the crediting period is essential to ensure the longterm sustainability of the project. Without the additionality from carbon finance, the viability of the project is jeopardized as this would incur having less cashflow available to reinvest, conduct repair & replacement of distributed stoves, and continue employing full-time local employees etc.

3.1.2 | VVB opinion (to be completed by VVB, if applicable):

Guidance *If required by SustainCERT or Gold Standard for this particular deviation, please add here the VVB's opinion.*

Not applicable.

3.2 | Impact of the deviation:

Guidance Use the space below to describe the impact of the deviation on project design, safeguarding principles assessment, SDG assessment, emissions reductions, monitoring frequency, data quality, potential risk or any other relevant aspect of the project. Please substantiate the impact assessment with relevant and verifiable data/information.

3.2.1 | Impact assessment (to be completed by Project developer):

There is no impact on the project design, safeguarding principles, SDG assessment, emission reductions, monitoring frequency, data quality, potential risk, or any other aspects of the project due to this deviation. The project will still abide by all Gold Standard applicable requirements.

Further, the extension of the project has several positive social and environmental impacts. The PD has estimated the SDGs to be achieved by the project each year during each monitoring period in next 5 year based on the SDGs results achieved by the project in the previous monitoring periods (average of SDGs achieved from MP6 2019 to MP7 2020):

Sustainable Development Goals Targeted	SDG Impact	Estimated to be Achieved	Unit/Products
SDG 7	Beneficiaries' s perception on fuel expenditures saved (KES saved per household per month)	805	KES saved per household per month
SDG 7	Number of stoves sold	60,000	Number
SDG 7	Cookstove efficiency (in savings)	7.84	Kgs /household/day
SDG 7	Increase in thermal efficiency from cooking with project technology	14.3%	%
SDG 8	Number of jobs created	25	Number
SDG 8	Number of men directly employed doing equal work (field officers)	4	Number
SDG 8	Number of women directly employed doing equal work (field officers)	11	Number
SDG 8	Average wages for men for equal work (field officers)	21,641	KES/month
SDG8	Average wages for women for equal work (field officers)	21,878	KES/month
SDG 8	Number of people trained	729	Number

SDG 8	Advantages for Climate Pal employees	Hifadhi Cooperative a table banking service for personal loans	Qualitative description
SDG 13	GHG emission reductions	247,700	tCO2e

Furthermore, multiple recent Governmental reports demonstrate that the baseline scenario of the Hifadhi-Livelihoods project has not changed much and that Embu County would thus benefit from the Hifadhi-Livelihoods cookstove project being extend an additional five years. Below are some extracts from such literature.

- "The traditional stone fire is the most prevalent cooking appliance used by the county population" (Page 16 of 439, COUNTY INTEGRATED DEVELOPMENT PLAN 2018-2022², Published by EMBU COUNTY GOVERNMENT, February 2019).
- 2. Embu County's recent Integrated Development Plan 2018-2022, published in February 2019 which aims to provide an extensive overview of the county's physical, social, economic and environmental development trends, mentions that climate change poses a serious threat to the county. Indeed, in recent years Embu has experienced "erratic climate cycles of droughts and crop failure [...]" (38). The governmental report insists that Embu County needs to implement measures to mitigate the effects of climate change, and one of the measures that is cited is the "promotion of wood energy efficiency and conservation through using improved stoves at household levels" (39). Extending the lifetime of the Hifadhi-Livelihoods project an additional five years will allow 60,000 households to continue using improved wood stoves and thus mitigate deforestation and carbon dioxide emissions.
- 3. 80% of households in Embu are exposed to poor indoor air quality pollution from cooking with fuelwood, and 80% from using paraffin for lighting, needs urgent attention. Given the high number of households that are dependent on paraffin and fuelwood for cooking and lighting, investment is needed to promote more carbon efficient cook stoves and improved indoor ventilation to avoid respiratory health risks to women and young children exposed to black carbon and particulate matter in the kitchen (Page 1 ENVIRONMENTAL PERFORMANCE INDEX (EPI): 2018³, Published by National Environment Management Authority (NEMA), 2019)

² <u>https://www.embu.go.ke/wp-content/uploads/2019/09/APPROVED-CIDP-2018-2022.pdf</u>

³ <u>http://meas.nema.go.ke/cbdchm/download/Meas/Biodiversity/Env.Performance-Index/Embu-EPI.pdf</u>

4. Real Gross County Product (GCP) growth rate for counties in Kenya averaged 5.6 per cent between 2014 and 2017 with 18 counties growing faster than the overall county average (Figure 3.1). Elgeyo Marakwet attained an average growth of 10.0 per cent, the highest for the period under review, while Embu County had an average growth rate of 2.6 per cent, the lowest for the period under review (page 38, Creating an Enabling Environment for Inclusive Growth in in Kenya, Kenya Economic Report 2020⁴, published by 2020 Kenya Institute for Public Policy Research and Analysis (KIPPRA), 2020)

Further as there no absolute plans are in place for the termination of the project and as such, it is likely that the beneficiaries will end up not being able to repair and replace their stoves once they break down and will thus revert to baseline conditions (use of 3 stone fire for cooking) as still 80% of the households do not have access to clean cooking devices and use *traditional stone fire for cooking*. Extending the project life for another 5 years up to 15/04/2028 will help in finding additional funding opportunities to enable the project termination process which will prevent **reversal**.

3.2.2 | VVB opinion (to be completed by VVB, if applicable):

Guidance *If required by SustainCERT or Gold Standard for this particular deviation, please add here the VVB's opinion.*

Not applicable

3.3 | Documents:

Guidance List of documents provided (note that once a decision has been made by Gold Standard, this deviation form along with supporting documents will be made public on the Gold Standard website. If any of the supporting documents are confidential, please indicate here to ensure they are omitted.)

Version number	Release date	Description
5 11.04.2022		Additional information added: - date of listing, design certification, transition
		- date of listing, design certification, transition

⁴ <u>https://kippra.or.ke/wp-content/uploads/2021/02/Kenya-Economic-Report-2020.pdf</u>

		- standard version
		- specific reference to a requirement deviated from
		 any previous deviations/design changes
		approved
		Guidance on VVB opinion
4	14.01.2021	
3	16.07.2020	
2	03.05.2018	
1	01.07.2017	Initial adoption







