



UPU | UNIVERSAL
POSTAL
UNION

CN 53 – Statement of sampling

Completion instructions

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1 General rules

A CN 53 form is generated for a combination of:

- Period: quarter, month or day (quarter or month if the sampling method is continuous, day otherwise).
- Mail flow (mail received/mail dispatched).
- Origin office.
- Destination office.
- Mail category.
- Format of contents (depending on whether accounting is performed with or without format separation).
- Receptacle type (if the operator wishes to report different receptacle types on different forms).

The statistical process is based on sampling for mail received, but sampling of mail sent may be performed to obtain control statistics. The information may then be used to cross-check figures given by a partner for mail this partner received. The UPU Regulations also indicate how control statistics may impact settlements.

1.1 Display rules

The following general display rules apply to the form:

- For visual clarity, it is strongly recommended that dynamic content be displayed in a different font from that used for static text (headings, tags, etc.). It is also recommended that dynamic content be displayed in bold.
- Unless specified otherwise, numbers displayed in the form are right-aligned in the cells.
- The decimal separator is a dot (.) when the form template is in English and is a comma (,) when the form template is in French.
- Unless specified otherwise, numbers are displayed without leading zeros.
- Where no value is available or the value is zero for a cell, the cell is left blank.
- For all numbers with four digits or more, a space is used as the thousand separator (example: 12 345).
- All weights reported in the form are in kilogrammes.
- When the representation of a numerical value includes x decimals, these x decimals are always displayed. For example, when weights are reported to one decimal place, a weight of 3 kg is displayed as 3.0.

1.2 Handling of multiple pages

The CN 53 template provides room to report 15 receptacles. If more than 15 receptacles are sampled for the combination of period, mail flow, origin office, destination office, mail category, format (if applicable) and receptacle type (if applicable), the following process should be followed:

- If the form is generated manually or semi-manually (with a spreadsheet, for instance), the number 1 is written in zone 31 (page number – see the template with zones on the next page). Then, another sheet of the same template is used, the number 2 is written in zone 31 (page number), the page is completed, and so on. Once all necessary sheets have been completed for the combination, they are counted and the total number of pages is written on each page in zone 32 (total number of pages). Totals are only entered on the last page and cover the contents of all pages.
- If the form is generated by an IT system, the above also applies. In addition, the template can be adjusted so that totals and the signature zone appear on the last page only. The header section may also be reduced on pages other than the first one.

2 Template with zones

The figure below shows the CN 53 template, with numbered tags showing each zone to be completed and for which completion instructions are provided.

Form prepared by: **1**

Date: **2**

STATEMENT OF SAMPLING

CN 53

Period of sampling: **3**
 Day
 Month
 Quarter

Mail direction: **4**
 Inbound
 Outbound

Sampling method: **5**
 24 days
 48 days
 Continuous

Origin	Operator	6	Destination	Operator	8	Mail category	10	Receptacle format	11	Receptacle type	12
	Office	7		Office	9						

13

Sample date	S9 receptacle identifier	Receptacle type	Gross weight	Tare weight	Total nb of items	Gross IPK	Content format: P/S		Content format: G		Content format: E		Observations
							Nb items	Net weight	Nb items	Net weight	Nb items	Net weight	
14	15	16	17	18	19	20	21	22	23	24	25		
Total 26													

Receptacles received or dispatched during the period		Total number of receptacles sampled during the period
Total number 27	Total weight 28	

Signature **30**

Completion instructions: CN 53 – Statement of sampling

3 Completion instructions for zones shown in the form

The table below lists the zone numbers appearing in the template on the previous page. For each zone, the label and the completion instructions are indicated.

<i>Zone</i>	<i>Label</i>	<i>Completion instructions</i>
1	Form prepared by	Code and name of the operator generating the form. The code is the 3-character operator code from UPU code list 206. The name is the 35-character operator name or, if it does not fit, the 12-character operator name (see UPU code list 206). The code and name are separated by space hyphen space.
2	Date	Date the form was generated, in format yyyy-mm-dd.
3	Period of sampling – Day/Month/Quarter (check boxes)	Period of sampling: Check the box corresponding to the period of sampling, i.e. day, month or quarter. The formats used are the following: – Day: yyyy-mm-dd – Month: yyyy-mm – Quarter: yyyy Q-q (q: possible values are 1, 2, 3 or 4) Note 1: The period of sampling is a month or quarter during which the method of sampling is continuous (see zone 5); otherwise, it is a day. Note 2: Continuous sampling is the default and usual sampling method. In practice, the CN 53 normally reports information for a quarter.
4	Mail direction – Inbound/Outbound (check boxes)	Mail flow: Check the box corresponding to the mail flow sampled: inbound (mail received) or outbound (mail dispatched).
5	Sampling method – 24 days/48 days/Continuous (check boxes)	Type of sampling: Check the box corresponding to the type of sampling performed, following the definition provided in the UPU Regulations.
6	Origin operator	Code and name of the origin operator of the receptacles reported in the statement. The instructions provided for zone 1 also apply here.
7	Origin office	Code and name of the office that dispatched the receptacles reported in the statement. The code is the 6-character IMPC code from UPU code list 108. The name is the 35-character IMPC name or, if it does not fit, the 12-character IMPC name (see UPU code list 108). The code and name are separated by space hyphen space.
8	Destination operator	Code and name of the destination operator of the receptacles reported in the statement. The instructions provided for zone 1 also apply here.
9	Destination office	Code and name of the destination office of exchange of the receptacles reported in the statement. The instructions provided for zone 7 also apply here.
10	Mail category	The mail category one-letter code from UPU code list 115.
11	Receptacle format	There is one CN 53 form per format and the format code is provided here (see UPU code list 120). N.B. – Format "X" is used to report mixed mail.

<i>Zone</i>	<i>Label</i>	<i>Completion instructions</i>
12	Receptacle type	Completed only if it is decided to report receptacle types separately, using one form for each type received. When this is completed, column 16 (receptacle type) is left blank. Code from UPU code list 121.
13	Table: sampling details	This table provides sampling details, with one line per receptacle sampled. If the form is generated by an IT system, it should be ordered by: <ul style="list-style-type: none"> – Sample date – Receptacle identifier Otherwise, it is ordered by sample date.
14	Sample date	To be completed only when the form is used to report continuous sampling (see zone 5) and the period reported is a month or quarter (see zone 3). The format is mm/dd, with a leading zero for days 01 to 09 and a leading zero for months 01 to 09.
15	S9 receptacle identifier	The 29-character receptacle identifier, following UPU standard S9.
16	Receptacle type	The receptacle type observed. See UPU code list 121. Completed only if it is decided <u>not</u> to report receptacle types separately (see zone 12).
17	Gross weight	The measured gross weight of the receptacle, with a precision of two or three decimals. N.B. – The same precision of two or three decimals must be used consistently for all sampled weights provided in the form. In other words, if the precision for the gross weight is two decimals, the precision for the tare weight and all weights per format must also be two decimals.
18	Tare weight	The tare weight of the receptacle, with a precision of two or three decimals. Optional, unless used in accounting (e.g. when mixed receptacles are sampled according to format – see section 4.1.). N.B. – The tare weight is the weight of the empty receptacle (including label, seal, straps, etc.).
19	Total number of items	The total number of items counted in the receptacle. This column must always be completed, even when separation by format is performed during sampling.
20	Gross IPK	Calculated by dividing the total number of items in zone 19 by the gross weight in zone 17, displayed with a precision of two decimals. Displaying the IPK per receptacle helps identify potential anomalies. No total is provided on the total line for this column.
21	Content format: P/S Number of items	The number of items for format P/S. The column is left empty if there are no items of this format or if the receptacle format is G or E and there is no indication of mis-segregation or mislabeling by format. Corresponds to format P when there is separation into three formats and format S when there is separation into two formats only (S combines P and G).
22	Content format: P/S Net weight	Net weight of the items for format P/S. The weight is provided with a precision of two or three decimals.

<i>Zone</i>	<i>Label</i>	<i>Completion instructions</i>
23	Content format: G (number of items and net weight)	Same as the information for format P/S – see instructions for zones 21 and 22.
24	Content format: E (number of items and net weight)	Same as the information for format P/S – see instructions for zones 21 and 22.
25	Observations	Free text, to be used in the event that something special needs to be reported concerning the receptacle. In other words, this field is not meant to be completed for each line.
26	Total	Totals per column for the number of items and the weights listed in the form. No totals are provided for the column indicating gross IPK.
27	Total number (of receptacles received or dispatched during the period)	This refers to receptacles received or dispatched (depending on whether the form is used for mail received or dispatched – see zone 4) from/to the partner operator of the form. It is also limited to the mail category and format corresponding to the form (see zones 10 and 11), to the pair of offices of the form (see zones 7 and 9), and – if selected in the header – the receptacle type (zone 12).
28	Total weight (of receptacles received or dispatched during the period)	The total gross weight. The instructions provided for zone 27 also apply here. This weight is used in reporting the combined totals of all CN 53 forms of a quarter, mail category and format on the CN 54 form (see section 4 "Transition from CN 53 to CN 54")
29	Total number of receptacles sampled during the period	This number is actually the count of receptacles listed in the form itself.
30	Signature	Signature of the person preparing the form. If the form is generated by an IT system, the signature may be replaced by a printed name or any identifier that allows the person who generated the form to be traced.
31	Page	The current page of the generated form, starting with 1 for the first page. It is permitted to leave this empty if the form has one page only. N.B. – It is advisable to choose a font and size that will display up to two digits correctly.
32	Page /	The total number of pages of the generated form. It is permitted to leave this empty if the form has one page only. N.B. – It is advisable to choose a font and size that will display up to two digits correctly.

4 Transition from CN 53 to CN 54

The CN 54 is the recapitulative statement of sampling, but it is not directly derived from the CN 53. The CN 54 does not list totals from each CN 53 form for a period. Instead, it simply provides grand totals of sampled mail for a quarter, by format and category.

4.1 Mixed flows

In cases where mail received was not separated by format but is sampled by format, some intermediate steps need to take place. For transparency and in order to avoid misunderstanding, it is recommended that calculation details be provided together with the CN 54 form and all associated CN 53 forms. Ideally, a spreadsheet listing CN 53 totals and detailing the calculations performed per CN 53 should be provided. This spreadsheet should also provide a breakdown of the overall gross weight by format.

The structure of this spreadsheet could be as follows (with as many lines as necessary per category):

CN53 Header						Format P/S					Format G					Format E							
Orig OE	Dest OE	Period	Category	Rec Type	Format	Sampled Gross weight	Sampled Tare weight	Dispatched gross weight	Sampled No of items	Sampled net weight	Calc. sampl gross weight	Estimated gross weight	Estimated No of items	Sampled No of items	Sampled net weight	Calc. sampl gross weight	Estimated gross weight	Estimated No of items	Sampled No of items	Sampled net weight	Calc. sampl gross weight	Estimated gross weight	Estimated No of items
ABBBBB	AAAAA	2018-Q1	A			150.12	3.30	2'215.3	1'697	115.07	117.66	1'736.24	25'042	264	27.02	27.63	407.69	3'896	32	4.73	4.84	71.37	472
ABBBBB	AAAAA	2018-Q1	A			162.43	3.90	3'210.9	1'746	117.60	120.49	2'381.90	34'515	279	30.70	31.46	621.80	5'515	29	10.23	10.48	207.20	573
ABBBBC	AAAAA	2018-Q1	A			183.04	4.50	2'987.6	1'972	126.50	129.69	2'116.79	32'187	290	33.40	34.24	558.90	4'733	32	18.64	19.11	311.91	522
ABBBBC	AAAAA	2018-Q1	A			251.06	6.00	4'010.8	2'152	191.20	195.88	3'129.29	34'379	371	38.80	39.75	635.02	5'927	30	15.06	15.43	246.48	479
ABBBBD	AAAAA	2018-Q1	A			270.11	6.30	4'418.9	2'265	201.00	205.80	3'366.81	37'065	501	45.60	46.69	763.81	6'196	36	17.21	17.62	286.27	589
ABBBBD	AAAAA	2018-Q1	A			286.43	7.20	4'732.0	2'348	210.40	215.83	3'565.57	38'790	498	39.80	40.83	674.47	6'227	31	29.03	29.78	491.96	512
Totals for CN54								21'675.50				16'296.60	201'969				3'661.71	36'495				1'617.20	3'148
Weight repartition per format												75.53%					16.97%					7.50%	

N.B. – The first line of data in the spreadsheet above corresponds to the second completed CN 53 sample provided at the end of this document. The calculated gross weight is computed using the algorithm below.

In the scenario in which mail received was not separated by format but is sampled by format, and assuming that the rates are for gross weights, the total tare weight from the CN 53 needs to be proportionally assigned to each format in order to obtain a total gross weight per format.

The calculation is performed with the CN 53 total as follows:

$$\text{<calculated gross weight format P>} = \text{<total net weight format P>} + \text{<total tare weight>} \times \frac{\text{<total net weight format P>}}{\text{<total gross weight>} - \text{<total tare weight>}}$$

$$\text{<calculated gross weight format G>} = \text{<total net weight format G>} + \text{<total tare weight>} \times \frac{\text{<total net weight format G>}}{\text{<total gross weight>} - \text{<total tare weight>}}$$

$$\text{<calculated gross weight format E>} = \text{<total net weight format E>} + \text{<total tare weight>} \times \frac{\text{<total net weight format E>}}{\text{<total gross weight>} - \text{<total tare weight>}}$$

For example:

- Total gross weight: 110.0 kg
- Total tare weight: 10.0 kg
- Total net weight P: 50 kg -> calculated gross weight format P: 55 kg
- Total net weight G: 30 kg -> calculated gross weight format G: 33 kg
- Total net weight E: 20 kg -> calculated gross weight format E: 22 kg

In this example, the tare weight of 10 kg is spread proportionally by format: 5 kg for format P, 3 kg for format G and 2 kg for format E.

In order to correctly aggregate all CN 53 forms for the CN 54, the sampled items and the sampled weight per format must be scaled by the factor <dispatched weight> (zone 28) / <sampled gross weight> (total of zone 17). The resulting estimated number of items and the estimated gross weight per format are used in order to sum up the totals of each CN 53 (see sample spreadsheet above).

4.2 Format separated flows

In order to correctly aggregate all CN 53 forms for the CN 54, the sampled items must be scaled by the factor <dispatched weight> (zone 28) / <sampled gross weight> (total of zone 17). The resulting estimated number of items and the dispatched weight (zone 28) are used in order to sum up the totals of each CN 53 (see sample spreadsheet below).

CN53 Header					Format P/S				Format G				Format E			
Orig OE	Dest OE	Period	Category	Rec Type	Sampled Gross weight	Sampled No of items	Dispatched gross weight	Estimated No of items	Sampled Gross weight	Sampled No of items	Dispatched gross weight	Estimated No of items	Sampled Gross weight	Sampled No of items	Dispatched gross weight	Estimated No of items
USJFKA	DKCPHA	2018-Q1	A		188.00	7598	2215.30	89531	414.10	3991	7654.30	73770	852.70	1478	9513.80	16490
USORDA	DKCPHA	2018-Q1	A		215.72	9021	3147.40	131618	123.40	789	1876.00	11995				
USLAXA	DKCPHA	2018-Q1	A		95.47	4878	1125.70	57517	78.20	501	1052.70	6744				
USMIAA	DKCPHA	2018-Q1	A						106.80	625	2147.10	12565	1238.80	3210	15472.40	40092
Totals for CN54							6488.40	278667			12730.10	105074			24986.20	56583

5 Next accounting steps when mail received is mixed but the rating is by format

When mail received is mixed but the rating is by format, the CN 54bis does not report this mail as "mixed mail". Instead, mixed mail received is divided into formats.

Two additional tables are provided together with the CN 54bis in order to provide calculation details on the distribution by format.

The first table shows how mixed-mail weight is divided into formats for mail received without format separation. The proportions per format come from the table in 4.1. The table may look like this (fictitious data, with mail for categories A and B only):

Mixed mail received:								
Quarter	Mail categ	Weight received	Proportion P (%)	Calculated P weight	Proportion G (%)	Calculated G weight	Proportion E (%)	Calculated E weight
1	A	6 522.1	75.6	4 930.7	16.9	1 102.2	7.5	489.2
	B	3 682.1	75.4	2 776.3	17	626.0	7.6	279.8
2	A	7 324.3	74.9	5 485.9	15.3	1 120.6	9.8	717.8
	B	4 168.1	75.1	3 130.2	20.1	837.8	4.8	200.1
3	A	7 211.9	75.1	5 416.1	18	1 298.1	6.9	497.6
	B	4 161.4	75.6	3 146.0	13.3	553.5	11.1	461.9
4	A	8 881.5	74.8	6 643.4	15.1	1 341.1	10.1	897.0
	B	4 113.5	77.2	3 175.6	16.8	691.1	6	246.8

The second table shows how the mail received with format separation and the calculated weight by format from the table above are combined. It may look like this (fictitious data, extract shown for the first two quarters, for mail categories A and B only):

Mail by format:					
Quarter	Mail categ	Format	Format separated weight received	Mixed mail received: proportional weight	Total weight in CN 54bis (sum of two previous columns)
1	A	P	6 215.2	4 930.7	11 145.9
		G	1 345.6	1 102.2	2 447.8
		E	652.9	489.2	1 142.1
1	B	P	4 356.0	2 776.3	7 132.3
		G	654.3	626.0	1 280.3
		E	321.0	279.8	600.8
2	A	P	7 436.0	5 485.9	12 921.9
		G	1 402.5	1 120.6	2 523.1
		E	1 001.2	717.8	1 719.0
2	B	P	4 563.3	3 130.2	7 693.5
		G	1 053.2	837.8	1 891.0
		E	320.8	200.1	520.9

The weight displayed in the CN 54bis is taken from the last column of this second table. From then on, accounting is performed normally: all mail is considered as separated by format in the CN 61.

6 Sample completed form

Two forms completed with fictitious data are provided below to illustrate different completion options based on the instructions:

- CN 53 for format separated dispatching
- CN 53 for non-format separated dispatching

N.B. – In these samples, the completion information appears in blue in order to better differentiate static and dynamic information. In reality, all information is normally printed in black.

CN 53 for format separated dispatching

Form prepared by: **DKA – Post Danmark A/S**

STATEMENT OF SAMPLING

CN 53

Date: **2018-05-15**

Period of sampling: Day
 Month
2018-01

Quarter

Mail direction: Inbound
 Outbound

Sampling method: 24 days
 48 days
 Continuous

Origin	Operator	USA – United States Postal Service	Destination	Operator	DKA – Post Danmark A/S	Mail category	Receptacle format	Receptacle type
	Office	USJFKA - ISC NEW YORK NY (USPS)		Office	DKCPHA - COPENHAGEN INC			

Sample date	S9 receptacle identifier	Receptacle type	Gross weight	Tare weight	Total nb of items	Gross IPK	Content format: P/S		Content format: G		Content format: E		Observations
							Nb items	Net weight	Nb items	Net weight	Nb items	Net weight	
01/03	USJFKA DKCPHA A UN 8 0001 001 00 0153	BG	15.30	0.29	228	14.90							
01/03	USJFKA DKCPHA A UN 8 0001 004 11 0094	IL	9.38	0.51	148	15.78							
01/04	USJFKA DKCPHA A UN 8 0003 002 00 0181	BG	18.12	0.29	273	15.07							
01/07	USJFKA DKCPHA A UN 8 0005 003 11 0089	IL	8.92	0.51	185	20.74							
01/09	USJFKA DKCPHA A UN 8 0007 002 00 0155	BG	15.50	0.29	260	16.77							
01/14	USJFKA DKCPHA A UN 8 0009 001 00 0171	BG	17.10	0.29	286	16.73							
01/17	USJFKA DKCPHA A UN 8 0011 001 00 0184	BG	18.38	0.29	281	15.29							
01/21	USJFKA DKCPHA A UN 8 0014 001 00 0145	BG	14.48	0.29	239	16.51							
01/22	USJFKA DKCPHA A UN 8 0015 002 00 0111	BG	11.11	0.29	165	14.85							
01/25	USJFKA DKCPHA A UN 8 0016 002 11 0079	IL	7.90	0.51	141	17.85							
01/28	USJFKA DKCPHA A UN 8 0018 002 00 0155	BG	15.52	0.29	228	14.69							
01/28	USJFKA DKCPHA A UN 8 0019 001 00 0170	BG	17.01	0.29	222	13.05							
01/30	USJFKA DKCPHA A UN 8 0021 001 00 0193	BG	19.30	0.29	261	13.52							
Total			188.02	4.43	2 917								

Receptacles received or dispatched during the period		Total number of receptacles sampled during the period	
Total number	125	Total weight	2 215.3
			13

Signature
PO#12345

Dimension 297 x 210 mm

Completion instructions: CN 53 – Statement of sampling

CN 53 for non-format separated dispatching

Form prepared by: **AAA – Test Post A**

STATEMENT OF SAMPLING

CN 53

Date: **2018-05-15**

Period of sampling: Day
 Month
 Quarter
2018-01

Mail direction: Inbound
 Outbound

Sampling method: 24 days
 48 days
 Continuous

Origin	Operator	ABA – Test Post B	Destination	Operator	AAA – Test Post A	Mail category	Receptacle format	Receptacle type
	Office	ABBBBB – Test IMPC B		Office	AAAAAA – Test IMPC A			

Sample date	S9 receptacle identifier	Receptacle type	Gross weight	Tare weight	Total nb of items	Gross IPK	Content format: P/S		Content format: G		Content format: E		Observations
							Nb items	Net weight	Nb items	Net weight	Nb items	Net weight	
01/03	ABBBBB AAAAAA AUN 8 0001 001 00 0153	BG	15.31	0.30	298	19.46	275	12.01	23	3.00			
01/03	ABBBBB AAAAAA AUN 8 0001 004 11 0094	BG	9.42	0.30	170	18.05	95	2.38	62	4.12	13	2.62	
01/04	ABBBBB AAAAAA AUN 8 0003 002 00 0169	BG	16.89	0.30	320	18.95	301	15.51	19	1.08			
01/07	ABBBBB AAAAAA AUN 8 0005 003 11 0089	BG	8.98	0.30	185	20.60	175	7.62	8	0.74	2	0.32	
01/09	ABBBBB AAAAAA AUN 8 0007 002 00 0155	BG	15.50	0.30	420	27.10	420	15.20					
01/14	ABBBBB AAAAAA AUN 8 0009 001 00 0170	BG	17.02	0.30	402	23.62	365	12.32	33	4.00	4	0.40	
01/17	ABBBBB AAAAAA AUN 8 0011 001 00 0179	BG	17.88	0.30	348	19.46	319	14.31	29	3.27			
01/21	ABBBBB AAAAAA AUN 8 0014 001 00 0146	BG	14.59	0.30	255	17.48	193	6.50	56	7.21	6	0.58	
01/22	ABBBBB AAAAAA AUN 8 0015 002 00 0111	BG	11.10	0.30	225	20.27	225	10.80					
01/25	ABBBBB AAAAAA AUN 8 0016 002 11 0079	BG	7.91	0.30	181	22.88	181	7.61					
01/28	ABBBBB AAAAAA AUN 8 0018 002 00 0155	BG	15.52	0.30	319	20.55	278	10.81	34	3.60	7	0.81	
Total			150.12	3.30	3 123		2 827	115.07	264	27.02	32	4.73	

Receptacles received or dispatched during the period		Total number of receptacles sampled during the period	
Total number	125	Total weight	2 215.3
			11

Signature

PO#12345