

## Version 3-Electronic Bill Print (EBP) Import and Export File Layout

This document provides the layout of information required for the creation of an Electronic Bill Print import or export file for Emergis from CIS Infinity.

### File Details

- **Client:** Emergis
- **Output File Name:** CON075.C\_EBPDATAFILENAME + current date (YYYYMMDD) + \_sequence number.txt, e.g. Emergis20100113\_1.txt, Emergis20100113\_2.txt
- **Class File Created by:** cstemergisbillpresentment
- **File Type:** Text

### General Information:

- This file is a fixed length text file.
- The first 3 characters of each record is the record type. Each record is 250 characters and terminated with a <CR/LF> (carriage return/line feed).
- Fields designated as type C are left justified and blank filled to the right.
- Fields designated as type N are right justified and zero filled to the left. In cases where values are currency, no decimal places will exist; instead, the values are padded to the right with two zeros to represent zero cents for every currency amount.
- Date fields are designated as type Date. These fields are in the YYYYMMDD format.

## File Layout

The following twelve record types are presented in this file:

- **'AAA'** – File Header Record
- **'BHD'** – Bill Header Record – There is one header for each bill.
- **'BH2'** – Bill Header 2 Record – There is one additional bill header record.
- **'BSV'** – Bill Service Record – There is one service record for each bill.
- **'BAD'** – Bill Address Record – There is one address record for each bill.
- **'BTR'** – Bill Transaction Record – There is one record for each transaction.
- **'BIT'** – Bill Information Only Transaction Record – There is one record for every information-only rate element.
- **'BMS'** – Bill Message Record – This handles up to 4 message records per bill.
- **'BMD'** – Bill Meter Record
- **'BSR'** – Bill Sub-Meter Reading Record – There is one record for each sub-meter reading.
- **'BRD'** – Bill Reading Record – There is one record for each reading.
- **'BHS'** – Reading History Record – This is the current reading + 12 history records
- **'BMP'** – Basic Multipliers
- **'BAT'** – Budget Allocation
- **'BEM'** – Customer Email
- **'BPH'** – Customer Phones
- **'ELO'** – Loan Details
- **'EQP'** – Solid Waste Details
- **'ZZZ'** – File Trailer Record

## Record Type: File Header – ‘AAA’ - (9 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	AAA	Y	3	1	3
2	Biller Identifier	C(50)		Y	50	4	53
3	File Identifier	C(4)	0001	Y	4	54	57
4	File Creation Date	C(10)		Y	10	58	67
5	File Creation Time	C(6)		Y	6	68	73
6	Billing Batch Cycle	C(7)		Y	7	74	80
7	Biller Defined Field	C(20)		Y	20	81	100
8	File Name	C(30)		Y	30	101	130
9	Spaces	C(20)		Y	20	131	250

### Field Definitions – ‘AAA’

- **Biller Defined Field** – The utility’s defined field, which is padded with 20 spaces.
- **Biller Identifier** – The name of the utility (SYS001.C\_NAME).
- **Billing Batch Cycle** – The billing batch cycle (BIF500.C\_CYCLE + BIF500.C\_BOOK).
- **File Creation Date** – The date when the file was created.
- **File Creation Time** – The time when the file was created.
- **File Identifier** – The field ID.
- **File Name** – The EBP file name.
- **Record Type** – The record type.

**Record Type: Bill Header – ‘BHD’- (28 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BHD</b>	Y	3	1	3
2	Record Sequence Number	C(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Bill Date	Date		Y	10	42	51
6	Due Date	Date		Y	10	52	61
7	Bill Number	N(10)		Y	10	62	71
8	Bill Amount	N(12)		Y	12	72	83
9	Amount After Due Date	N(12)		Y	12	84	95
10	Bill Format	C(1)	“ “	Y	1	96	96
11	Drawn From Bank	C(1)	No	Y	1	97	97
12	Draw Date	Date		Y	10	98	107
13	Draw Amount	C(12)		Y	12	108	119
14	OCR Line	C(60)		Y	60	120	179
15	Plan Type	C(2)		Y	2	180	181
16	Bill Type	C(1)		Y	1	182	182
17	Company Code	C(2)		Y	2	183	184
18	Division Code	C(2)		Y	2	185	186
19	Account Type Code	C(2)		Y	2	187	188
20	Reconcile Bill	C(1)		Y	1	189	189
21	New Draw Amount	N(12,2)		Y	12	190	201
22	Reconcile Status	C(1)		Y	1	202	202
23	YTD Charge	N(12,2)		Y	12	203	214
24	YTD Credit	N(12,2)		Y	12	215	226
25	YTD Category Charges	N(12,2)		N	12	227	238
26	Return Envelope	C(1)		N	1	239	239
27	Spaces	C(4)		Y	4	240	243
28	Account Cycle Book	C(7)		Y	7	244	250

### Field Definitions – ‘BHD’

- **Account Cycle Book** – The account, cycle and book information.
- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Amount After Due Date** – The amount to be paid after the due date (BIF951.Y\_TOTNET).
- **Account Type Code** – The account type code.
- **Bill Amount --** The amount to be paid before the due date (BIF951.Y\_TOTGROSS).
- **Bill Date** – The bill date (BIF951.D\_BDATE).
- **Bill Format** – The template to be used, e.g. Space-Default, T-TOU, D-Demand.
- **Bill Number** – The bill number (BIF951.I\_BILLNUM).
- **Bill Type** – The bill type (BIF951.C\_BTTYPE), e.g. Space- default, 1-first, F-final.
- **Company Code** – The Company code (CON027.C\_COMPANY).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Division Code** – The division code (CON028.C\_DIVISION).
- **Draw Amount** – The draw amount (BIF951.Y\_DRAWAMT).
- **Draw Date --** The draw date is calculated based on the due date (BIF951.D\_DDATE) and the draw day (BIF951.I\_DRAWDAY) from the bank.
- **Drawn From Bank** – The (Y/N) flag indicating whether the amount to be paid is to be drawn from the bank.
- **Due Date** – The due date (BIF951.D\_DDATE).
- **New Draw Amount** – The new amount to be drawn from the bank.
- **OCR Line** – The OCR line is calculated based on the setup in CON036 for C\_TYPE and L\_ACTIVE.
- **Plan Type** – The plan type (PAP002.C\_PLANTYPE).
- **Reconcile Bill** – The (Y/N) flag indicating whether the bill is to be reconciled.

- **Reconcile Status** – The reconciliation status.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Return Envelope** – Indicates if a return envelop is provided.
- **YTD Category Charges** – The year-to-date category charges.
- **YTD Charge** – The year-to-date charges.
- **YTD Credit** – The year-to-date credit amount.

**Note:** The Account Cycle Book field is populated only when the **CON075.L\_INCLUDESERVICEINEBPBTR** condition exists. The **Return Envelope** is used when the **CON069.L\_ENVELOPE** condition exists. The **YTD Category Charges** is used when the **CON069.L\_YTDCHARGES** condition exists.

## Record Type: Bill Header 2 – ‘BH2’- (13 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	BH2	Y	3	1	3
2	Record Sequence Number	C(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Language Code	C(2)		Y	2	42	43
6	Previous Bill Amount	N(12,2)		Y	12	44	55
7	YTD Plan Amount	N(12,2)		Y	12	56	67
8	Equal Plan Amount	N(12,2)		Y	12	68	79
9	Adjusted Plan Amount	N(12,2)		Y	12	80	91
10	Payment Profile	C(2)		Y	2	92	93
11	Cash Only	C(1)		N	1	94	94
12	Previous Bill Date	Date		Y	10	95	104
13	Spaces	C(146)		Y	146	105	250

### Field Definitions – ‘BH2’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Adjusted Plan Amount** – The equal payment plan amount plus any other transaction changes that are not included in the payment plan.
- **Cash Only** – Indicates that only cash payments are accepted for the selected account.
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Equal Plan Amount** – The equal payment plan amount.
- **Language Code** – The language code (BIF001.C\_LANGUAGE).
- **Payment Profile** – This is the profile used to indicate which payments will be offset during the billing process.
- **Previous Bill Amount** – The balance from the previous bill.
- **Previous Bill Date** – The bill date of the previous bill (BIF951.D\_BDATE).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The bill header 2 record type, which is “BH2”.

- **YTD Plan Amount** – The total of the equal payment plan amount since the last reconciliation.

**Record Type: Bill Service – ‘BSV’- (11 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	BSV	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Customer Name	C(50)		Y	50	12	61
4	Service Address	C(50)		Y	50	62	111
5	Mailing Address Line 5	C(50)		Y	50	112	161
6	Account Number	C(15)		Y	15	162	176
7	Customer Number	C(15)		Y	15	177	191
8	Parcel Number	C(25)		Y	25	192	216
9	Direction Instruction Indicator	C(1)		Y	1	217	217
10	Service Concession	C(20)		N	20	218	237
11	Spaces	C(13)		Y	13	238	250

**Field Definitions – ‘BSV’**

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Name** – The customer name (BIF951.C\_NAME).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Direction Instruction Indicator** – Indicates if there is a direction instruction with values “Y=yes” or “N=no”.
- **Mailing Address Line 5** – The first 4 lines from the Bill Address Record (BAD) (BIF951.C\_ADDRESS5).
- **Parcel Number** – The parcel number or roll number.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Address** – The service address (BIF951.C\_ADDRESS).
- **Service Concession** – The service address concession for the contact.

**Note:** The **Parcel Number** and **Direction Instruction Indicator** are used only when the **CON075.L\_INCLUDEROLLNUMBER** condition exists. The **Service Concession** is used only when the **CON075.L\_EBPINCLUDECONCESSION** condition exists.

**Record Type: Bill Address – ‘BAD’- (9 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BAD</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Mailing Address Line 1	C(50)		Y	50	12	61
4	Mailing Address Line 2	C(50)		Y	50	62	111
5	Mailing Address Line 3	C(50)		Y	50	112	161
6	Mailing Address Line 4	C(50)		Y	50	162	211
7	Account Number	C(15)		Y	15	212	226
8	Customer Number	C(15)		Y	15	227	241
9	Spaces	C(9)		Y	9	242	250

**Field Definitions – ‘BAD’**

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Mailing Address Line 1** – The first mailing address line for this bill (T001.C\_ADDRESS1).
- **Mailing Address Line 2** – The second mailing address line for this bill (T001.C\_ADDRESS2).
- **Mailing Address Line 3** – The third mailing address line for this bill (T001.C\_ADDRESS3).
- **Mailing Address Line 4** – The fourth mailing address line for this bill (T001.C\_ADDRESS4).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

**Note:** The mailing address line 5 is in the BSV record and contains these four 4 lines from the Bill Address Record – ‘BAD’.

## Record Type: Bill Transaction – ‘BTR’- (18 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BTR</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	A/R Description	C(25)		Y	25	12	36
4	Amount	N(13)		Y	13	37	49
5	Transaction Description	C(50)		Y	50	50	99
6	Account Number	C(15)		Y	15	100	114
7	Customer Number	C(15)		Y	15	115	129
8	Transaction Date	Date		Y	10	130	139
9	Billed Consumption	N(15,2)		Y	15	140	154
10	Rate	N(15,5)		Y	15	155	169
11	Service Code	C(2)		Y	2	170	171
12	Transaction Code	C(4)		Y	4	172	175
13	Affected A/R Code	C(2)		Y	2	176	177
14	Transaction Type	C(2)		Y	2	178	179
15	Meter Number	C(10)		N	10	180	189
16	Loan Number	N(15)		N	15	190	204
17	Spaces	C(46)		Y	46	205	250
18	Extended Transaction Descriptions	C(200)		Y	200	251	450

### Field Definitions – ‘BTR’

- **Account Number** – The account number.
- **Affected A/R Code** – The affected A/R code of the service.
- **A/R Description** – This is either electric, water or blank for general A/R.
- **Amount** – The A/R amount.
- **Billed Consumption** – The actual billed consumption.
- **Customer Number** – The customer number.
- **Extended Transaction Descriptions** – Additional information describing the payment or charges.
- **Loan Number** – The loan number which links directly to the Loan Number field in the ‘ELO’ record (position 64-78). This field is populated if there is a loan transaction.

- **Meter Number** – The meter number (BIF953. C\_METER).
- **Rate** – The rate used in the bill calculation.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Code** – The service code.
- **Transaction Code** – The transaction code.
- **Transaction Date** – The transaction date.
- **Transaction Description** – The description of the payment or charges, e.g. plan balance prior to this bill, current balance, etc.
- **Transaction Type** – The transaction type.

**Note:** Changes in build 18.20 for the meter record included the Billed Consumption and Rate. T005 (BIF955) or T027 (BIF967) is used based on the Transaction Details **CON075.L\_EBP\_BTR\_T027** setup. If T005 is used, then the Billed Consumption and Rate will be empty. The Affected A/R Code, Service Code, Transaction Code and Transaction Type are populated only when the **CON075.L\_INCLUDESERVICEINEBPBTR** condition exists. The Extended Transaction Descriptions field is optional and will be available only when the Include Extended Transaction Descriptions checkbox is selected in the Bill Print Format Control (CON069). Changes in Version 3 Build 2.1010 in table BIF967 are used with the meter number (this will be empty if it applies to a service bill code) based on the Transaction Details CON075.L\_EBP\_BTR\_T027Meter setup.

## Record Type: Bill Information Only Transaction – ‘BIT’- (16 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BIT</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Rate Element Description	C(30)		Y	30	12	41
4	Amount	N(13,2)		Y	13	42	54
5	Consumption	N(15,2)		Y	15	55	69
6	Account Number	C(15)		Y	15	70	84
7	Customer Number	C(15)		Y	15	85	99
8	Bill Code	C(3)		Y	3	100	102
9	Rate Element Counter	N(3)		Y	3	103	105
10	Service Code	C(2)		Y	2	106	107
11	Billing Factor Code	N(3)		N	3	108	110
12	Billing Factor Value	N(12,6)		N	12	111	122
13	Multiplier Counter	N(5)		N	5	123	127
14	Multiplier Value	N(15,6)		N	15	128	142
15	Multiplier Function	C(3)		N	3	143	145
16	Spaces	C(138)		Y	105	146	250

### Field Definitions – ‘BIT’

- **Account Number** – The account number.
- **Amount** – The transaction amount.
- **Bill Code** – The bill code for the information-only rate element.
- **Billing Factor Code** –The billing factor code that is used in the information-only rate element.
- **Billing Factor Value** – The value of the billing factor that is used in the information-only rate element.
- **Consumption** – The actual billed consumption.
- **Customer Number** – The customer number.
- **Multiplier Counter** – The basic multiplier number.
- **Multiplier Function** – The multiplier function, e.g. ADD, UPDate, INSert, DELete, END. Only the first three characters of these functions are stored in the EBP file (refer to the uppercase letters).

- **Multiplier Value** – The current value of the basic multiplier as specified by the multiplier counter field.
- **Rate Element Counter** – The counter for the information-only rate element.
- **Rate Element Description** –The description of the information-only rate element.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Code** – The service code.

**Note:** This record is used when the **CON069.L\_INFORMATIONONLY** condition exists.

**Record Type: Bill Message – ‘BMS’- (5 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BMS</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Message	C(209)		Y	209	42	250

**Field Definitions – ‘BMS’**

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Message** – The bill message (BIF951.C\_BMESSAGECODE).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

## Record Type: Bill Meter Record – ‘BMD’- (11 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BMD</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	BRD Sequence Number	N(8)		Y	8	12	19
4	Meter Number	C(10)		Y	10	20	29
5	Meter Bill Code	C(3)		Y	3	30	32
7	Account Number	C(15)		Y	15	77	91
8	Customer Number	C(15)		Y	15	92	106
9	Metered Consumption	N(12,2)		N	12	107	118
10	Billing Factor	N(12,6)		N	12	119	130
11	Spaces	C(120)		Y	120	131	250

### Field Definitions – ‘BMD’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Billing Factor** – The current calorific factor or billing factor.
- **BRD Sequence Number** – The BRD sequence number.
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Meter Bill Code** – The meter bill code.
- **Meter Number** – The meter number.
- **Metered Consumption** – The metered consumption, prior to the billing factors/units conversion being applied.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

**Record Type: Bill Reading – ‘BSR’- (16 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BSR</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Master Meter Number	C(10)		Y	10	12	21
4	Sub Meter Number	C(10)		Y	10	22	31
5	Reading Type	C(20)		Y	20	32	51
6	Previous Reading Date	Date		Y	10	52	61
7	Current Reading Date	Date		Y	10	62	71
8	Number of Days	N(3)		Y	3	72	74
9	Previous Reading	N(18,5)		Y	18	75	92
10	Current Reading	N(18,5)		Y	18	93	110
11	Consumption	N(20,5)		Y	20	111	130
12	Multiplier 1	N(10)		Y	10	131	140
13	Multiplier 2	N(10)		Y	10	141	150
14	Account Number	C(15)		Y	15	151	165
15	Customer Number	C(15)		Y	15	166	180
16	Spaces	C(8)		Y	70	181	250

### Field Definitions – ‘BSR’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Consumption** – The billed consumption of the sub-meter (BIF971.N\_CONSUM).
- **Current Reading** – The current reading of the sub-meter (BIF953.N\_CURRD).
- **Current Reading Date** – The current reading date of the sub-meter (BIF952.D\_RDATE).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Previous Reading** – The previous reading of the sub-meter (BIF953.N\_PREVRD).
- **Previous Reading Date** – The previous reading date of the sub-meter (BIF952.D\_PRDATE).
- **Number of Days** – The number of days between the previous and current sub-meter reading (BIF952.I\_DAYS).
- **Master Meter Number** – The meter number of the master meter (BIF953.C\_METER).
- **Multiplier1** – The meter multiplier of the sub-meter (BIF953.N\_MULTI).
- **Multiplier2** – This is used for the additional meter multiplier of the sub-meter (BIF953.N\_MULTI2), if applicable.
- **Reading Type** – The reading type of the sub-meter (BIF953.C\_RDTYPE), e.g. KWH/KW/KVA.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Sub Meter Number** – The meter number of the sub meter (BIF953.C\_METER).

**Record Type: Bill Reading – ‘BRD’- (28 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BRD</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Service Description	C(25)		Y	25	12	36
4	Service Type	C(1)		Y	1	37	37
5	Reading Type	C(20)		Y	20	38	57
6	Previous Reading Date	Date		Y	10	58	67
7	Current Reading Date	Date		Y	10	68	77
8	Number of Days	N(3)		Y	3	78	80
9	Reading Status	C(20)		Y	20	81	100
10	Previous Reading	N(13,1)		Y	13	101	113
11	Current Reading	N(13,1)		Y	13	114	126
12	Consumption	N(12)		Y	12	127	138
13	Multiplier 1	N(10)		Y	10	139	148
14	Multiplier 2	N(10)		Y	10	149	158
15	Usage Per Day	N(10)		Y	10	159	168
16	Discount Description	C(25)		Y	25	169	193
17	Discount Percent	N(3,0)		Y	3	194	196
18	Power Factor	N(6,0)		Y	6	197	202
19	Account Number	C(15)		Y	15	203	217
20	Customer Number	C(15)		Y	15	218	232
21	Unit	C(10)		Y	10	233	242
22	Bill Code 1	C(3)		N	3	243	245
23	Bill Code 2	C(3)		N	3	246	248
24	Bill Code 3	C(3)		N	3	249	251
25	Bill Code 4	C(3)		N	3	252	254
26	Bill Code 5	C(3)		N	3	255	257
27	Adjusted Usage	N(12,3)		N	12	258	269
24 or 28	Spaces	C(2) or C(181)		Y	2 or 181	249 or 270	250 or 450

## Field Definitions – ‘BRD’

- **Account Number** – The account number (BIF952.C\_ACCOUNT).
- **Adjusted Usage** – The adjusted usage.
- **Bill Code1** – The service bill code 1 (BIF952.C\_BILLCODE).
- **Bill Code2** – The service bill code 2 (BIF952.C\_BILLCODE1).
- **Bill Code3** – The service bill code 3 (BIF952.C\_BILLCODE2).
- **Bill Code4** – The service bill code 4 (BIF952.C\_BILLCODE3).
- **Bill Code5** – The service bill code 5 (BIF952.C\_BILLCODE4).
- **Consumption** – The meter consumption (BIF953.N\_CONSUM).
- **Current Reading** – The current reading (BIF953.N\_CURRD).
- **Current Reading Date** – The current reading date (BIF952.D\_RDATE).
- **Customer Number** – The customer number (BIF952.C\_CUSTOMER).
- **Discount Description** – Primary metering allowance (CON063.C\_DESCRIPTION).
- **Discount Percent** – The discount percent (CON063.N\_PERCENTDISCOUNT).
- **Number of Days** – The number of days between the readings (BIF952.I\_DAYS).
- **Power Factor** – The power factor of the demand service (BIF952.N\_PF).
- **Previous Reading** – The previous reading (BIF953.N\_PREVRD).
- **Previous Reading Date** – The previous reading date (BIF952.D\_PRDATE).
- **Multiplier1** – The meter multiplier (BIF953.N\_MULTI).
- **Multiplier2** – This is used for the additional meter multiplier (BIF953.N\_MULTI2), if applicable.
- **Reading Status** – The reading status (BIF953.C\_RDSTAT), e.g., regular or estimated.
- **Reading Type** – The reading type (BIF953.C\_RDTYPE), e.g. KWH/KW/KVA

- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Description** – The service description (CON009.C\_DESCRIPTION), e.g. electric/water/demand.
- **Service Type** – The service type (BIF952.C\_TYPE), e.g. D-demand, C-consumption.
- **Unit** – The unit of measure (BIF953.C\_UNITS).
- **Usage Per Day** – The amount of usage per day, which is calculated based on the consumption and number of days.

**Note:** The **Bill Code1** and **Bill Code2** records are included only when the **CON075.L\_EBPINCLUDESERVICEBCODE** condition exists. The **Bill Code3**, **Bill Code4** and **Bill Code5** records are included only when the **CON075.L\_EBPINCLUDESERVICEBCODE** condition and **CON069.L\_EXTENDEDTRANDESC** conditions exist. The **Adjusted Usage** field is used when the **CON069.L\_ADJUSTEDCONSCHARGES** condition exists.

## Record Type: Reading History – ‘BHS’- (18 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	BHS	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Service Description	C(25)		Y	25	12	36
4	Service Type	C(1)		Y	1	37	37
5	Read Date	Date		Y	10	38	47
6	Number of Days	N(3)		Y	3	48	50
7	Consumption	N(12)		Y	12	51	62
8	Usage Per Day	N(10)		Y	10	63	72
9	Account Number	C(15)		Y	15	73	87
10	Customer Number	C(15)		Y	15	88	102
11	Unit	C(10)		Y	10	103	112
12	Meter Number	C(10)		Y	10	113	122
13	Read Type	C(20)		Y	20	123	142
14	Adjusted Usage	N(12)		N	12	143	154
15	Charges	N(10,2)		N	10	155	164
16	Bill Number	N(15)		N	15	165	179
17	Service Code	C(2)		N	2	180	181
18	Spaces	C(69)		Y	69	182	250

### Field Definitions – ‘BHS’

- **Account Number** – The account number (BIF952.C\_ACCOUNT).
- **Adjusted Usage** – The adjusted usage.
- **Bill Number** – The bill number for this account.
- **Charges** – Summary of charges (BIF967.N\_AMOUNT).
- **Consumption** – The billed consumption (BIF953.N\_CONSUM).
- **Customer Number** – The customer number (BIF952.C\_CUSTOMER).
- **Meter Number** – The meter number.
- **Number of Days** – The number of days between the readings (BIF952.I\_DAYS).
- **Read Date** – The actual read date (BIF952.D\_RDATE).

- **Read Type** – The meter read type.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Code** – The service code.
- **Service Description** – The service description (CON009.C\_DESCRIPTION), e.g. electric/water/demand.
- **Service Type** – The service type (BIF952.C\_TYPE), e.g. D-demand, C-consumption.
- **Unit** – The unit of measure (BIF953.C\_UNITS).
- **Usage Per Day** – The amount of usage per day, which is calculated based on the consumption and number of days.

**Note:** Depending on the read date, this record type includes the current reading plus a maximum of up to 12 history records. In V3 the number of previous readings depends on the CON069.I\_NUMBEROFHISTORY and CON069.L\_HISTORYBYMETER fields. The **Meter Number** and **Read Type** records are used only when the **CON069.L\_HISTORYBYMETER** condition exists. The **Adjusted Usage** field is used when the CON069.L\_ADJUSTEDCONSCHARGES condition exists. The Charges field is used when the CON069.L\_CHARGEHISTORY condition exists.

## Record Type: Basic Multipliers – ‘BMP’- (12 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BMP</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Basic Multiplier Number	N(3)		Y	3	12	14
4	Service Group	C(2)		Y	2	15	16
5	Basic Multiplier Description	C(25)		Y	25	17	41
6	Basic Multiplier Old Value	N(15)		Y	15	42	56
7	Basic Multiplier New Value	N(15)		Y	15	57	71
8	Account Number	C(15)		Y	15	72	86
9	Customer Number	C(15)		Y	15	87	101
10	Basic Multiplier Notes	C(50)		N	50	72	151
11	Service Code	C(2)		N	2	152	153
12	Spaces	C(97)		Y	97	154	250

### Field Definitions – ‘BMP’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Basic Multiplier Description** – The basic multiplier description.
- **Basic Multiplier New Value** – The basic multiplier new value.
- **Basic Multiplier Notes** – The notes about the basic multiplier.
- **Basic Multiplier Number** – The basic multiplier number.
- **Basic Multiplier Old Value** – The basic multiplier old value.
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service Code** – The service code.
- **Service Group** – The service group code.

**Note:** The **Basic Multiplier** record type is used only when the **CON075.L\_EBPBASICMULTIPLIERS** condition exists.

The **Basic Multiplier Notes** is used only when the **CON075.L\_EBPINCLUDECONCESSION** condition exists.

### Record Type: Budget Allocation – ‘BAT’- (16 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	BAT	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Budget Type	C(20)		Y	20	12	21
4	Service	C(2)		Y	2	32	33
5	Status	C(2)		Y	2	34	35
6	Date	Date		Y	10	36	45
7	Days	N(4)		Y	4	46	49
8	Allocation Value	N(20)		Y	20	50	69
9	Units	C(2)		Y	2	70	71
10	Bill Number	C(10)		Y	10	72	81
11	Account Number	C(15)		Y	15	82	96
12	Customer Number	C(15)		Y	15	97	111
13	Daily Average CCF	N(10,3)		N	10	112	121
14	Daily Average Gallon	N(10,3)		N	10	122	131
15	Billing Period	N(2)		N	2	132	133
16	Spaces	C(116)		Y	116	134	250

### Field Definitions – ‘BAT’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Allocation Value** – The allocation value.
- **Bill Number** – The bill number.
- **Billing Period** – The actual billing period.
- **Budget Type** – The type of budget, e.g. indoor or outdoor.
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Daily Average CCF** – The daily water consumption average in cubic feet.
- **Daily Average Gallon** – The daily water consumption average in gallons.

- **Date** – The date of the allocation.
- **Days** – The number of allocation days.
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.
- **Service** – The service code.
- **Status** – The status of the service, e.g. estimate – “ES” or actual – “AC”.
- **Units** – The units of measure (BIF953.C\_UNITS).

**Note:** The **Budget Allocation** record type is used if there is an **Allocation Value**.

### Record Type: Customer Email – ‘BEM’- (6 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	BEM	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Email Address	C(100)		Y	100	42	141
6	Spaces	C(109)		Y	109	142	250

### Field Definitions – ‘BEM’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Email Address** – The customer specific email address for this bill (BIF001.C\_EMAIL).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

**Note:** The email value is included in the bill print and EBP file only when the **CON075.L\_INCLUDEEMAILINBILLPRINT** condition exists in Version 2. In Version 3, the Include Customer Email flag is present on the Bill Print Format Control form instead.

## Record Type: Customer Phones – ‘BPH’- (15 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>BPH</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Phone 1 Type	C(15)		Y	15	42	56
6	Phone 1 Number	C(25)		Y	25	57	81
7	Phone 2 Type	C(15)		Y	15	82	96
8	Phone 2 Number	C(25)		Y	25	97	121
9	Phone 3 Type	C(15)		Y	15	122	136
10	Phone 3 Number	C(25)		Y	25	137	161
11	Phone 4 Type	C(15)		Y	15	162	176
12	Phone 4 Number	C(25)		Y	25	177	201
13	Phone 5 Type	C(15)		Y	15	202	216
14	Phone 5 Number	C(25)		Y	25	217	241
15	Spaces	C(9)		Y	9	242	250

### Field Definitions – ‘BPH’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Phone 1 Number** – The phone number of type Phone 1 Type for this customer (BIF010.C\_PHONETYPE).
- **Phone 1 Type** – The descriptive string for the phone type of the customer phone 1 (BIF010.C\_PHONENUMBER).
- **Phone 2 Number** – The phone number of type Phone 2 Type for this customer (BIF010.C\_PHONETYPE).
- **Phone 2 Type** – The descriptive string for the phone type of the customer phone 2 (BIF010.C\_PHONENUMBER).
- **Phone 3 Number** – The phone number of type Phone 3 Type for this customer (BIF010.C\_PHONETYPE).
- **Phone 3 Type** – The descriptive string for the phone type of the customer phone 3 (BIF010.C\_PHONENUMBER).
- **Phone 4 Number** – The phone number of type Phone 4 Type for this customer (BIF010.C\_PHONETYPE).
- **Phone 4 Type** – The descriptive string for the phone type of the customer phone 4 (BIF010.C\_PHONENUMBER).

- **Phone 5 Number** – The phone number of type Phone 5 Type for this customer (BIF010.C\_PHONETYPE).
- **Phone 5 Type** – The descriptive string for the phone type of the customer phone 5 (BIF010.C\_PHONENUMBER).
- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

**Note:** This record is optional and is only included if one or more phone types are configured in the Bill Print Format Control (**FRMCON069**) in the Customer Phones to Include mover list. If phone types are configured, this record is included even if the customer/bill has no phones with that type.

Customer phones are retrieved. These are phones associated with the customer only (i.e. **BIF010.C\_ACCOUNT** is blank).

Phone numbers are formatted. The order of the phone numbers is determined by the order of the phone types in the Bill Print Format Control (**FRMCON069**) mover selection list Customer Phones to Include.

## Record Type: File Header –‘ELO’ - (21 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	ELO	Y	3	1	3
2	Sequence #	N(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Loan Type Code	C(2)		Y	2	42	43
6	Loan Type Description	C(20)		Y	20	44	63
7	Loan Number	N(15)		Y	15	64	78
8	Loan Total	N(15,2)		Y	15	79	93
9	Interest Rate	N(5,2)		Y	5	94	98
10	# Pay Periods Per Year	N(3)		Y	3	99	101
11	Pay Period Description	C(15)		Y	15	102	116
12	Number of Pay Periods	N(10)		Y	10	117	126
13	Payment Amount	N(15,2)		Y	15	127	141
14	Final Payment Amount	N(15,2)		Y	15	142	156
15	Current Balance	N(15,2)		Y	15	157	171
16	Interest paid To Date	N(15,2)		Y	15	178	186
17	Loan Date	DateTime		Y	10	187	196
18	First Payment Date	DateTime		Y	10	197	206
19	Next Payment Date	DateTime		Y	10	207	216
20	Current Period #	N(10)		Y	10	217	226
21	Spaces	C(24)		Y	24	227	250

### Field Definitions – ‘ELO’

- **Account Number** – The account number (POS004.C\_ACCOUNT).
- **Current Balance** – The current loan balance.
- **Current Period #** – The current pay period number.
- **Customer Number** – The customer number (POS004.C\_CUSTOMER).
- **Final Payment Amount** – The final payment amount for the loan.
- **First Payment Date** – The date scheduled for the first payment on the loan.
- **Interest Rate** – The set interest rate for the loan.
- **Interest paid To Date** – The amount of interest incurred on the loan to date.

- **Loan Date** – The actual date when the loan was issued.
- **Loan Number** – The loan number for this account.
- **Loan Total** – The total amount of the loan.
- **Loan Type Code** – The loan type code.
- **Loan Type Description** – The description of the loan type.
- **Next Payment Date** – The next payment date.
- **Number of Pay Periods** – The actual number of pay periods.
- **# Pay Periods Per Year** – The number of scheduled pay periods per year.
- **Payment Amount** – The actual payment amount.
- **Pay Period Description** – The description of the pay period.
- **Sequence #** – The sequence number.
- **Record Type** – The record type.

## Record Type: Solid Waste Details – ‘EQP’- (12 Fields)

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>EQP</b>	Y	3	1	3
2	Record Sequence Number	N(8)		Y	8	4	11
3	Account Number	C(15)		Y	15	12	26
4	Customer Number	C(15)		Y	15	27	41
5	Serial Number	C(15)		Y	15	42	56
6	Container Type	C(50)		Y	50	57	106
7	Pickup Day(s)	C(21)		Y	21	107	127
8	Hauler’s Name	C(30)		Y	30	128	157
9	Location	C(30)		Y	30	158	187
10	Route Numbers	C(50)		Y	50	188	237
11	Number of Units	N(10)		Y	10	238	247
12	Spaces	C(3)		Y	3	248	250

### Field Definitions – ‘EQP’

- **Account Number** – The account number (BIF951.C\_ACCOUNT).
- **Customer Number** – The customer number (BIF951.C\_CUSTOMER).
- **Serial Number** – The equipment serial number (BIF014.C\_SERIALNUMBER).
- **Container Type** – The container type description associated with the equipment (BIF014.C\_CONTAINERTYPE).
- **Pickup Days** – Flags indicating which days of the week are pickup days. Each day has a column of three characters. The columns are arranged as follows: Monday; Tuesday; Wednesday; Thursday; Friday; Saturday; Sunday. Any column that is populated is a pickup day. To enhance readability, the particular day will be abbreviated in each column (i.e. MON, TUE, WED, THU, FRI, SAT, SUN). If multiple routes are involved, this is the combination of all days from all routes.
- **Hauler’s Name** – The collected-by description associated with the service address (BIF002.C\_COLLECTEDBY).
- **Location** – The location description associated with the equipment (BIF014.C\_LOCATION).
- **Number of Units** – The number of units of equipment (BIF014.I\_TOTAL).
- **Route Numbers** – The route number codes associated with the equipment. If multiple routes are involved, then this is a comma separated list of route number codes. (MEF407.C\_ROUTENUMBER or MEF404.C\_ROUTENUMBER).

- **Record Sequence Number** – The record sequence number, which is unique for the entire file.
- **Record Type** – The record type.

**Note:** The solid waste output is only generated when the Include Equipment Details checkbox is selected in the Bill Print Format Control (**FRMCON069**). Depending on what type of solid waste linkage is being used, the route information is either retrieved from the Solid Waste Details table (MEF407) or the Solid Waste Route Number Table (MEF404).

Equipment details linkage is determined by codes in the **CON075.C\_SOLIDWASTEDETAILS** configuration code. If the “NS” or “S” codes appear in the configuration item, then the Solid Waste Details table (MEF407) linkage is being used. Otherwise, the older Solid Waste Route Number Table (MEF404) service entrance linkage is being used.

It is possible for multiple routes to be associated with one equipment item. If this occurs, the route numbers appear in a comma separated format in the Route Number field. The pickup days of all routes will also be combined.

**Record Type: File Trailer – ‘ZZZ’- (10 Fields)**

Field #	Field Name	Field Type	Default Field Value	Required Field (Y/N)	Field Length	Field Start Position	Field End Position
1	Record Type	C(3)	<b>ZZZ</b>	Y	3	1	3
2	Bill Identifier	C(50)		Y	50	4	53
3	File Identifier	C(4)		Y	4	54	57
4	File Creation Date	Date		Y	10	58	67
5	File Creation Time	Date		Y	6	68	73
6	Total Records in file	C(10)		Y	10	74	83
7	Total Bills in file	C(10)		Y	10	84	93
8	Total Amount	N(13,0)		Y	13	94	106
9	Future Use	C(24)		Y	24	107	130
10	Spaces	C(120)		Y	120	131	250

**Field Definitions – ‘ZZZ’**

- **Bill Identifier** – The name of the utility (SYS001.C\_NAME).
- **File Creation Date** – The date when the file was created.
- **File Creation Time** – The time when the file was created.
- **File Identifier** – The field ID.
- **Future Use** – This field is padded with 24 spaces.
- **Record Type** – The record type.
- **Total Amount** – The reconcilable dollar total. This is the sum of the bill amount field from the Bill Header Records (BHD).
- **Total Bills in file** – The total number of bills in the file.
- **Total Records in file** – The total number of records in the file, including the header and trailer records.