



**ELECTRONIC DATA INTERCHANGE (EDI)**

**404**

**RAIL CARRIER SHIPMENT INFORMATION  
(BILL OF LADING)**

**997**

**FUNCTIONAL ACKNOWLEDGEMENT**

**USING ASC X12 TRANSACTION SET 404 VERSION 004010**

**10/01/98**

## Table of Contents

INTRODUCTION.....	6
Rail Carrier Shipment Information Processing.....	7
EDI Acknowledgments.....	7
Sample 404.....	8
The Transaction .....	9
Data Element Type.....	9
Data Element Requirement Designator.....	9
Data Element Length.....	9
General Information.....	10
Communication Protocol.....	11
Segments and Data Elements:	
<b>ISA</b> Interchange Control Header.....	14
<b>GS</b> Beginning Segment.....	15
<b>ST</b> Transaction Set Header.....	16
<b>ZC1</b> Beginning Segment for Data Correction or Change.....	17
<b>BX</b> General Shipment Information.....	18
<b>BNX</b> Rail Shipment Information.....	19
<b>M3</b> Release Information.....	20
<b>N9</b> Reference Number.....	21
<b>CM</b> Cargo Manifest.....	22
<b>M1</b> Insurance Details.....	23
<b>DTM</b> Date/Time Reference.....	24
<b>N7</b> Equipment Details ( <i>N7 Loop</i> ).....	25
EM    Equipment Characteristics.....	27
VC    Motor Vehicle Control ( <i>N7/VC Loop</i> ).....	28
N1    Name ( <i>N7/VC/N1 Loop</i> ).....	29
N3    Address Information.....	30
N4    Geographic Information.....	31
H3    Special Handling Instructions.....	32
M7    Seal Numbers.....	33
N5    Car Ordered.....	34
IC    Intermodal Chassis Equipment.....	35
IM    Intermodal Information.....	36
M12   In-Bond Identifying Information.....	37
<b>EI</b> Empty Car Disposition - Pended Destination Consignee ( <i>E1 Loop</i> )	38
E4    Empty Car Disposition - Pended Destination City.....	39

E5	Empty Car Disposition - Pending Destination Route.....	40
PI	Price Authority Identification.....	41
GA	Canadian Grain Information.....	42
<b>REF</b>	Reference Identification ( <i>REF Loop</i> ) .....	43
N10	Quantity and Description .....	44
N1	Name .....	45
N3	Address Information .....	46
N4	Geographical Information .....	47
NA	Cross Reference Equipment .....	48
<b>F9</b>	Origin Station.....	49
<b>D9</b>	Destination Station.....	50
<b>N1</b>	Name ( <i>N1 Loop</i> ).....	51
N2	Additional Name Information.....	52
N3	Address Information.....	53
N4	Geographic Information.....	54
REF	Reference Identification .....	55
PER	Administrative Communications Contact.....	56
BL	Billing Information.....	57
<b>S1</b>	Stop Off Name ( <i>S1 Loop</i> ).....	58
S2	Stop Off Address.....	59
S9	Stop Off Station.....	60
N1	Name ( <i>S1/N1 Loop</i> ).....	61
N2	Additional Name Information.....	62
N3	Address Information.....	63
N4	Geographic Location.....	64
PER	Administrative Communications Contact.....	65
<b>R2</b>	Route Information.....	66
<b>R9</b>	Route Code.....	68
<b>E1</b>	Empty Car Disposition Pended Destination Consignee ( <i>E1 Loop</i> )...	69
E4	Empty Pended Destination Pended Destination City.....	70
E5	Empty Car Disposition Pended Destination Route.....	71
PI	Price Authority Information.....	72
<b>H3</b>	Special Handling Instructions.....	73
<b>PS</b>	Protective Service Instructions.....	74
<b>LX</b>	Assigned Number ( <i>LX Loop</i> ).....	76
L5	Descriptions, Marks,and Numbers.....	77
<b>L0</b>	Line Item, Quantity, and Weight ( <i>L0 Loop</i> ).....	78
MEA	Measurements.....	81
L1	Rate and Charges.....	82
PI	Price Authority Information.....	83

X1	Export License.....	84
<b>T1</b>	Transit Inbound Origin ( <i>TI Loop</i> ).....	85
T2	Transit Inbound Lading.....	86
T3	Transit Inbound Route.....	87
T6	Transit Inbound Rates.....	88
T8	Free Form Transit Data.....	89
<b>L3</b>	Total Weight and Charges.....	90
<b>LS</b>	Loop Header.....	91
<b>LH1</b>	Hazardous ID Information ( <i>LH1 Loop</i> ).....	92
LH2	Hazardous Classification.....	96
LH3	Proper Shipping Name.....	97
LFH	Free Form Haz Mat Information.....	98
LEP	EPA Required Data.....	99
LH4	Canadian Hazardous Requirements.....	100
LHT	Transborder Hazardous Requirements.....	101
LHR	Haz Mat ID Reference Numbers.....	102
PER	Administrative Communications Contact.....	103
<b>LE</b>	Loop Trailer.....	104
<b>PER</b>	Admin. Communication Contact (Haz Mat Shipments Only).....	105
<b>LH2</b>	Hazardous Classification Information.....	106
<b>LHR</b>	Haz Mat ID Reference Numbers (Haz Mat Shipments Only).....	107
<b>LH6</b>	Hazardous Certification.....	108
<b>XH</b>	Pro Forma B13 Information.....	109
<b>X7</b>	Customs Information.....	110
<b>SE</b>	Transaction Set Trailer.....	111
<b>GE</b>	Functional Group Trailer.....	112
<b>IEA</b>	Interchange Control Trailer .....	113
<b>997</b>	<b>Functional Acknowledgement</b> .....	114
	Introduction.....	115
	Basic Formatting Rules.....	116
	Segments and Data Elements	
	ISA - Interchange Control Header.....	117
	GS - Functional Group Header.....	118
	ST - Transaction Set Header.....	119
	AK1 - Functional Group Response Header.....	120
	AK2 - Transaction Set Response Header.....	121
	AK3 - Data Segment Note.....	122
	AK4 - Data Element Note.....	123
	AK5 - Transaction Set Response Trailer.....	124
	AK9 - Functional Group Response Trailer.....	125

SE - Transaction Set Trailer.....	126
GE - Functional Group Trailer.....	127
IEA - Interchange Control Trailer.....	128
Appendix 1 - Use of ISA Headers with Railinc.....	129
Appendix 2 - Intermodal Safe Container Act Requirements.....	130

## ***Introduction***

Transaction Set 404: Bill of Lading  
Functional Group: SR

This transaction set contains the format and establishes the data contents of the Rail Carrier Shipment Information Transaction Set (404) for the use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to transmit rail carrier specific bill of lading information to a railroad. It is the initial tender of a shipment between a consignor and a rail carrier and can be used as notification of equipment release and/or a legal bill of lading.

Burlington Northern Santa Fe will accept the Rail Carrier Shipment Information published by DISA for ASC X12. The following guidelines are all-inclusive and identify unique requirements for use of the ASC X12 404 transaction set when transmitting data to Burlington Northern Santa Fe.

To obtain X12 standards and documentation, contact:

Data Interchange Standards Association, Inc.  
1800 Diagonal Road, Suite 355  
Alexandria, VA 22314-2840  
703-548-7005

Or:

Washington Publishing Company  
Orders: 800-972-4334  
Phone: 301-590-9337  
[www.wpc-edi.com](http://www.wpc-edi.com)

### ***Rail Carrier Shipment Information / Bill of Lading Processing***

The general steps in processing 404s electronically are initiated when the customer enters or creates bill of lading in their computer. This information, or data, is then formatted into the ASC X12 404 transaction set. This formatting may be performed by you, the customer, or your third party value added network. After formatting, the transaction is delivered to Burlington Northern Santa Fe or your third party value added network. The BNSF computer then performs a security edit and certain basic alpha-numeric edits and determines that all mandatory elements and segments are present.

This becomes the document that will create a rail carrier waybill which will be used in releasing your equipment, set up a revenue document, create the operating instructions, and if an interline shipment, pass the information on to the next rail carrier.

### ***EDI Acknowledgments***

BNSF will generate a 997 Functional Acknowledgment to you, the customer, indicating if the electronic format met all requirements for processing. If rejected at this level, the document will not be processed any further.

BNSF will generate a 824 Application Acknowledgement to you, the customer, indicating that the bill of lading information was used by Burlington Northern Santa Fe's application systems. It is designed to accommodate the business need of reporting the acceptance, rejection, or acceptance with change of the bill of lading.

**Sample 404**

Minimal data requirements for a carload bill of lading

GS\*SR\*ABCCUSTOMER\*BNSF\*19981231\*1526\*1315\*X\*004010  
 ST\*404\*1234  
 BX\*00\*R\*PP\*\*BNSF\*L\*B\*N  
 BNX\*A  
 M3\*B\*19981231\*1526\*CT  
 N9\*RP\*AWI226\*\*19981231\*1526\*CT  
 N9\*BM\*HGP2684\*\*19981231\*1526\*CT  
 N7\*ATSF\*311597\*195320\*N\*\*\*\*\*RR  
 F9\*\*CYRIL\*OK  
 D9\*\*HOUSTON\*TX  
 N1\*CN\*ABC CUSTOMER  
 N4\*HOUSTON\*TX  
 N1\*SH\*XZY CUSTOMER  
 N4\*CYRIL\*OK  
 PER\*NT\*JOHN DOE\*TE\*123-456-7890  
 R2\*BNSF\*S\*\*\*R  
 LX\*1  
 L5\*1\*GYPSUM CRUDE\*1491110\*T  
 L0\*1\*\*\*\*\*1\*CLD  
 PI\*CT\*12345\*\*\*BNSF\*BNC  
 SE\*21\*1315  
 GE\*1\*1315

Minimal data requirements for an intermodal bill of lading

GS\*SR\*ABCCUSTOMER\*BNSF\*19981231\*1526\*1315\*X\*004010  
 ST\*404\*1234  
 BX\*00\*R\*PP\*\*BNSF\*L\*B\*N  
 BNX\*A  
 M3\*B\*19981231\*1526\*CT  
 N9\*BM\*HGP2684\*\*19981231\*1526\*CT  
 N7\*REAZ\*123456\*25000\*N\*\*\*\*\*TL  
 F9\*\*CHICAGO\*IL  
 D9\*\*SEATTLE\*WA  
 N1\*CN\*ABC CUSTOMER  
 N4\*SEATTLE\*WA  
 N1\*SH\*XZY CUSTOMER  
 N4\*CHICAGO\*IL  
 PER\*NT\*JOHN DOE\*TE\*123-456-7890  
 R2\*BNSF\*S\*\*\*25\*X  
 LX\*1  
 L5\*1\*FAK\*4611110\*T  
 L0\*1\*\*\*\*\*1\*TLD  
 PI\*CT\*12345\*\*\*BNSF\*QT  
 SE\*20\*1315  
 GE\*1\*1315



## ***The Transaction***

A transaction set is used to describe the electronic transmission of single document between one company's computer and another company's computer.

EDI transactions are defined by segments, and each item within the segment becomes a data element. Data Element Type, Requirement Designator, and Length are described below. These identifiers are listed for each Data Element throughout the remainder of this guide.

### ***Data Element Type***

Specifies the characters that may be used.

Nn	Numeric	N indicates that it is numeric; n indicates decimal place.
R	Decimal	R indicates an optional decimal point for integer values or a required decimal for decimal values. BNSF can accept positive and decimal values.
ID	Identifier	A specific code taken from a table defined in the Data Element Dictionary such as unit of measure.
AN	String	A series of alpha/numeric characters, such as a company name.
DT	Date	YYYYMMDD (ISO standard date)
TM	Time	HHMM express in 24-hour clock format.

### ***Data Element Requirement Designator***

Indicates when this element must be included in an electronic document.

M	Mandatory	The data element shall be used in the segment.
C	Conditional	The data element may be required in the segment based on whether another element is used.
O	Optional	The data element may or may not be used in the segment at the option of the user.

### ***Data Element Length***

The minimum length and maximum length of the characters in the data element.

1/15	Indicates that "1" is the minimum acceptable value and "15" is the maximum.
------	---

## ***General Information***

To establish an "Electronic Data Interchange Partnership" with Burlington Northern Santa Fe, you may contact your BNSF Representative or call BNSF's Customer Support number (1-800-809-2673 Option 4).

The minimum requirements for EDI participation are:

Personal Computer (IBM compatible)  
2400 Baud Modem (Hayes compatible)  
Single line telephone (Data capable)\*

\* BNSF offers toll-free 800 service for data transmission.

Also necessary is a translation program or software capable of converting your billing information into the proper EDI format.

If a personal computer is your choice of hardware, BNSF offers software which will allow you to create and transmit your billing information. If you desire to use existing personal computer programs to create your billing or, if you are a mainframe computer user, you may wish to create your own translation software or purchase one of the many commercial software packages available.

Another option for establishing an EDI partnership with Burlington Northern Santa Fe is to utilize the services of a "Third Party" vendor.

Whatever selection your business needs dictate, Burlington Northern Santa Fe will assist you in establishing your EDI partnership.

## ***Communication Protocol***

As successful communications are necessary to exchange data between two computers, Burlington Northern Santa Fe has attempted to offer you a complete array of communication possibilities, all of which are available for your use, 24 hours, every day of the year. This allows you to select the best option to fit your business needs.

Options available are:

1.     **DIRECT.**     Toll-free 800 service via asynchronous 2400/9600/14400 BPS line.  
Toll-free 800 service via bisynchronous 4800/9600 BPS line.  
SMTP (simple mail transport protocol) mail via the Internet.  
FTP (file transfer protocol) via the Internet.
2.     **THIRD PARTY.**     Use any independent third party to message switch/translate your data to BNSF.

Burlington Northern Santa Fe offers two dial-in options.

1. You may dial BNSF direct using 2400 or higher BPS Asynchronous communications protocol.

The asynchronous communication parameters are as follows:

Transmission speed	2400 or higher BPS
Line protocol	Half-duplex
Parity	Even
Data bits	7
Stop bits	1
Modem	Bell 212A, v.32, v.32bis, or compatible
Data characters	ASCII
Flow control	XON/XOFF (hex 11 and 13)
End of transmission	EOT (hex 4)
Telephone number	800-545-7515

All messages must be preceded by a line with the User ID followed by the normal input data.

Example of an Asynchronous transmission:

```

USERID
GS*
ST*
DATA
SE*
ST*
DATA
SE*
GE*
```

2. BNSF utilizes IBM standard 3780 protocol for bisynchronous communications.

## BNSF 404 Implementation Guideline

New line characters should separate each segment. BNSF will remove any control characters and will not perform any type of conversion or translation of those characters.

Transmission speed	9600 BPS Phone 800-573-9384 4800 BPS Phone 800-328-9479
Line protocol	Half Duplex
Transparency	Off
Block check	Odd
Blocking Factor	1
Data bits	8
Data transfer	Point to point
Transmission protocol	IBM 3780
Modem	v.32, BELL 208, or compatible
Data character	EBCDIC
Newline character	Hex 15
# character	Hex 7B
* character	Hex 5C
STX (start of text)	Hex 02
ETX (end of text)	Hex 03
EOB/ETB (end of block)	Hex 26
EOT (end of transmission)	Hex 37
IRS	Hex 1E

Example of a Bisynchronous transmission:

All messages must be preceded with a User ID. The User ID must be bounded with an STX (Start of Text) and a "#" at the beginning (Synchronous communications) and an ETB (End of Transmission Block) at the end. Subsequent text should also be bounded by an STX and ETB, with an ETX (End of Text) and EOT (End of Transmission) closing the transmission.

Transmissions should be as follows:

```

STX
#USERID
ETB
STX
GS*SR*USERID*BNSF* etc.
ST*404*001
    DATA
SE*nn*001
ST*404*002
    DATA
SE*nn*002
GE etc.
ETB
ETX
EOT

```

Wait on the line for BNSF's "Transmission Received"

Next, you either hang up or request your 997 responses by sending the following:

STX  
#USERID  
ETB  
STX  
VP 997  
SIG Any 3 alpha characters are acceptable.  
ETB  
ETX  
EOT

OR

STX  
\$\$REQUEST ID=*USERID* BATCHID='997'  
ETB  
ETX  
EOT

**SEGMENT ISA–Interchange Control Header****MANDATORY**

Maximum Use: 1 per transaction set

Example:

ISA\*00\*.....\*00\*.....\*02\*CUSTOMERID.....\*02\*BNSF.....\*981231\*0034\*U\*00306\*123456789\*1\*P\*~

#	NAME	DATA ELEMENT # / TYPE	MIN/MAX	REQ	CONTENTS
1	Authorization Information Qualifier	I01 / ID	02/02	M	00
2	Authorization Information	I02 / AN	10/10	M	
3	Security Information Qualifier	I03 / AN	02/02	M	00
4	Security Information	I04 / AN	10/10	M	
5	Interchange ID Qualifier	I05 / ID	02/02	M	02
6	Interchange Sender ID	I06 / ID	15/15	M	Customer id/name
7	Interchange ID Qualifier	I07 / ID	02/02	M	02
8	Interchange Receiver ID	I08 / ID	15/15	M	BNSF
9	Interchange Date	I09 / DT	06/06	M	YYMMDD. This is the only time throughout the transaction that the year is not reflected by 4 characters. Min/max remains 6/6.
10	Interchange Time	I10 / TM	04/04	M	HHMM
11	Interchange Control Standard ID	I11 / ID	01/01	M	U - US EDI Community of ASC X12, TDCC, and UCS
12	Interchange Control Version Number	I12 / ID	05/05	M	00401 - X12 ver 4010
13	Interchange Control Number	I13 / N0	09/09	M	
14	Acknowledgement Requested	I14 / ID	01/01	M	0 - No acknowledgement requested 1 - Interchange acknowledgement requested
15	Test Indicator	I15 / ID	01/01	M	P - Production T - Test
16	Subelement Separator	I16 / AN	01/01	M	BNSF uses ~ (tilde character)

***NOTE: Spaces must be used when maximum length requirement is not met by the contents of the data element. Spaces are shown above in the example by periods (.) . These should not be part of the ISA but used here to illustrate that spaces are required even if no data is supplied within the position This segment needs to be exactly 106 positions long - counting the ISA, all the delimiters, all the mandatory fields plus a Hex 15 immediately following ISA 16 to indicate carriage return/line feed  
IF COMMUNICATING VIA RAILINC, PLEASE SEE APPENDIX 1 AT END OF THIS DOCUMENT.***

**SEGMENT GS—Beginning Segment****MANDATORY**

Maximum Use: 1 per transaction set

Example: GS\*SR\*PASSWORD/ID\*BNSF\*19981231\*1300\*1001\*X\*004010

#	NAME	DATA ELEMENT # / TYPE	MIN/MAX	REQ	CONTENTS
1	Functional Group	479 / A	02/02	M	SR for 404
2	Appl Send	142 / AN	02/12	M	Mailbox or customer ID agreed to by acceptance into BNSF computer system.
3	Appl Receiver	124 / A	02/12	M	BNSF
4	Interchange Date	29 / N	08/08	M	YYYYMMDD of transmission
5	Interchange Time	30 / N	04/04	M	HHMM of transmission
6	Control Number	28 / N	01/09	M	Sender's message control number.
7	Agency Code	455 / N	01/02	M	X only for ASC X12
8	Version	480 / N	01/12	M	Senders transmission standard version. This manual represents version 004010.

***SEGMENT ST - Transaction Set Header*****MANDATORY**

Maximum Use: 1 per transaction set

Example: ST\*404\*0001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Functional Group	143 /ID	03/03	M	404
2	Control Number	329 /AN	01/09	M	Sender message control number. This number will be returned by receiver in response transaction set.



**SEGMENT ZC1 - Beginning Segment for Data Correction or Change****OPTIONAL**

Maximum Use: 1

Example: ZC1\*43002007\*ABCD\*123456\*122109\*19981231\*AI\*BNSF\*R

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Shipment ID Number	145 / AN	01/30	O	
2	Equipment Initial	206 / AN	01/04	O	
3	Equipment Number	207 / AN	01/10	M	BNSF uses first 6 characters of the equipment number. If a 7th digit is present, it is assumed to be an intermodal check digit.
4	Transaction Reference Number	244 / AN	01/10	M	
5	Transaction Reference Date	243 / DT	08/08	M	YYYYMMDD
6	Correction Indicator	202 / ID	02/02	M	AI - supply additional information CO - correction
7	SCAC	140 / ID	02/04	M	BNSF
8	Transport Type Code	91 / ID	01/02	M	R - rail X - intermodal

BNSF's systems uses equipment initial and number as the key to find a match within 4 days of its original receipt. Other matching keys are bill of lading number and origin/destination. If an origin point is attempted to be corrected, customer must supply the above information, including the waybill number and date (ZC104 and ZC105).

Corrections are automatically applied on intermodal shipments if its received prior to equipment ramping or assignment. Corrections to carload shipments are handled on a manual basis. The corrected bill comes in, creates a voided transaction, and sends a printed copy to Customer Waybill Center for reviewal.

Each correction will create an interline 417 to include the ZC1 segment and BNSF forwards on to interline carriers if applicable and/or as long as BNSF still has responsibility of the car.

**SEGMENT BX**–General Shipment Information**MANDATORY**

Maximum Use: 1

Example: BX\*00\*R\*PP\*\*BNSF\*L\*\*S

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Transaction Set Purpose Code	353 / ID	02/02	M	00 - original 04 - If this is a change / correction, use in conjunction with ZC1 segment.
2	Transport Method Code	91 / ID	01/02	M	R - rail X - intermodal
3	Method of Pay	146 / ID	02/02	M	PP - prepaid CC - collect NR - non-revenue CM - company material If company material, use CM and also reflect H in the BX07 listed below.
4	Shipment ID number (SID)	145 / AN	01/30	O	
5	SCAC	140 / ID	02/04	M	BNSF
6	Weight Unit Qualifier	188/ ID	01/01	O	L - pounds K - kilograms S - tons
7	Shipment Qualifier	147 / ID	01/01	O	B - revenue loads for single shipment E - empty equipment billing H - company material nonrevenue
8	Section 7 Code	226 / ID	01/01	O	S - in effect, signed N - not in effect
9	Capacity Load Code	195 / ID	01/01	O	C - full cubic capacity F - full capacity G - full gallonage capacity M - full marked capacity V - full visible capacity
10	No longer used	---	---	--	---
11	Customs Document Handling Code	501 / ID	02/02	O	If BX11 = 14, 24, or 34; then X1 segment is required for Canadian origins only.
12	Confidential Bill Req	199 / ID	01/01	O	
13	Goods/Service Tax Code	714 / ID	01/01	O	

**SEGMENT BNX–Rail Shipment Information****OPTIONAL**

Maximum Use: 1

Example: BNX\*A\*\*S

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Shipment Weight Code	460 / ID	01/01	O	A - agreement weights D - destination weights R - railroad scale weight - RR to weight the shipment S - shipper scale weight T - tariff weights N - no weight required; contract or per car rates M - manifest weight O - official weight U - mutually defined weight
2	Reference Pattern ID	129 / ID	01/13	O	
3	Billing Code	11 / ID	01/01	O	S - loaded revenue bill U - unit train shipment M - multi-car
4	Repetitive Pattern Number	223 / N0	05/05	O	

If customer intends for the railroad to weigh the shipment, the BX01 should reflect R, and the N704 (weight qualifier) should reflect E (estimate).

BNSF application systems converts the BX01 value to a two character equivalent shown below:

A agreement weights convert to PW  
D destination weights convert to DW  
R railroad scale weights convert to EW  
S shipper scale weights convert to SW  
T tariff weights convert to TW  
N no weight required converts to CW  
M manifest weight converts to SW  
O official weight converts to WA  
U mutually defined weight converts to CW

***SEGMENT M3–Release Information*****MANDATORY**

Maximum Use: 1

Example: M3\*B\*199812311\*1300

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Release Code	132 / ID	01/01	M	B- billing information only
2	Date	373 / DT	08/08	O	YYYYMMDD
3	Time	377 / N	04/04	O	HHMM
4	Time Code	623 / ID	02/02	O	CT - central time ET - eastern time LT - local time MT - mountain time PT - pacific time AT - Alaskan time NT - Newfoundland time TT - atlantic time

BNSF uses its own applications to perform equipment release. This segment is for billing purposes only - it will not create an auto release of equipment based on time and date reflected within this segment.

**SEGMENT N9–Reference Number****MANDATORY**

Maximum Use: 30

Example: N9\*BM\*EDIC0001\*\*19981231\*1300

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Qualifier	128 / ID	02/03	M	BL - government bill of lading number BM - bill of lading number BN - booking number CO - customer order number EB - embargo permit number EN - embargo number GR - grain order reference number SN - seal number (also reflected in M7) WM - weight agreement number WY - rail waybill number * If other qualifiers are needed, refer to the data dictionary within the standards documentation
2	Reference Number	127/ AN	01/30	C	
3	Description	369 / AN	01/45	C	
4	Date	373 / DT	08/08	O	YYYYMMDD
5	Time	377 / TM	04/08	O	HHMM
6	Time Code	623 / ID	02/02	O	CT - central time ET - eastern time LT - local time MT - mountain time PT - pacific time AT - Alaskan time NT - Newfoundland time TT - Atlantic time

**SEGMENT CM–Cargo Manifest****OPTIONAL**

Maximum Use: 2

Example: CM\*110\*D\*BALTIMORE\*19981231\*BOOKING1234\*BNSF\*\*\*VESSEL

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Voyage Number	55 / AN	02/10	O	
2	Port Terminal Code	115 / ID	01/01	C	D - port at which the cargo was discharged L - port at which the cargo is loaded to the vessel I - final port at which the cargo is unloaded from the vessel
3	Port Name	114 / AN	02/24	O	
4	Date	373 / DT	08/08	O	YYYYMMDD If CM02 =D, this will represent the dock date If CM02 = L, this will represent the sail date
5	Booking Number	13 / AN	01/17	O	
6	SCAC	140 / ID	02/04	O	Current carrier
7	SCAC	140 / ID	02/04	O	Previous carrier
8	Date	373 / DT	08/08	O	YYYYMMDD - Manifest date
9	Vessel Name	182 / AN	02/28	O	
10	Pier Number	113 / AN	01/04	O	
11	Pier Name	112 / AN	02/14	O	
12	Terminal Name	174 / AN	02/30	O	
13	State/Province Code	156 / ID	02/02	O	
14	Country Code	26 / ID	02/03	O	
15	Reference Number	127 / AN	01/30	O	Vessel agent number

**SEGMENT M1–Insurance Details****OPTIONAL**

Maximum Use: 1

NOTE: THIS SEGMENT IS NOT USED BY BNSF

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Country Code	26 / ID	02/03	M	
2	Carriage Value	14 / N0	02/08	M	
3	Declared Value	74 / N2	02/10	O	
4	Rate Value/Qualifier	122 / ID	02/02	O	
5	Entity ID Code	98 / ID	02/02	O	
6	Free Form Message	61 / AN	01/30	O	
7	Rate/Value Qualifier	122 / ID	02/02	C	
8	Monetary Value	782 / R	01/15	C	
9	% Qualifier	1004 / ID	01/02	C	
10	%	954 / R	01/10	C	
11	% Qualifier	1004 / ID	01/02	C	
12	%	954 / ID	01/10	C	

**SEGMENT DTM–Date/Time Reference****OPTIONAL**

Maximum Use: 5

Example: DTM\*002\*19981231\*1200\*CT

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Date & Time Qualifier	374 / ID	03/03	M	002 - delivery requested 458 - Intermodal Safe Container Act certification date as provided by shipper (required for Safe Container Act compliance - see appendix 2) ICF - Intermodal Safe Container Act certification, date when information was converted to EDI (see appendix 2)
2	Date	373 / DT	08/08	C	YYYYMMDD
3	Time	337 / TM	04/08	C	
4	Time Zone	623 / ID	02/02	O	CT - central time ET - eastern time LT - local time MT - mountain time PT - pacific time AT - Alaskan time NT - Newfoundland time TT - Atlantic time



**SEGMENT N7–Equipment Details****MANDATORY**

Maximum Use: 1 (225 loops)

Example: N7\*BN\*123456\*24000\*N\*\*\*\*\*RR

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Equipment Initial	206 / AN	01/04	M	
2	Equipment Number	207 / AN	01/10	M	First 6 digits are used to determine rail equipment numbers. If a 7th digit is present, it is assume to be an intermodal check digit. For numbers with less than 6 digits, leading zeros are accepted but not required.
3	Weight	81 / R	01/10	O	This should be the numeric value of the weight of this equipment. Weight may be provided here or in the L0 segment. Scale weights should be provided in this segment. For intermodal, the actual net weight or the certified weight should be passed here. For intermodal shipments greater than 29,000 pounds, see Safe Container Act compliance rules in Appendix 2.
4	Weight Qualifier	187 / ID	01/02	C	CE - certified weight E - estimated weight G - gross weight N- net weight
5	Tare Weight	167 / N0	03/08	C	Tare represents the weight of the equipment only. Gross weight indicates weight of the equipment plus commodity. If this data element is supplied with a weight qualifier above (N704) of G (gross), BNSF applications will subtract this value from the weight supplied in the N703 and convert the weight to a net value for the total shipment.
6	Allowance	232 / N0	02/06	O	
7	Dunnage	205 / N0	01/06	O	Weight of material used to protect lading.
8	No longer used	---	---	-	---
9	No longer used	---	---	-	---
10	Ownership	102 / ID	01/01	O	N - railroad controlled R - seller owned S - customer owned or leased T - trip leased

## BNSF 404 Implementation Guideline

11	Equipment Description Code	40 / ID	02/02	O	CC - container with chassis CH - chassis CN - container without chassis GS - generator set RT - reefer car TL - trailer RR - railcar ID - idler
12	SCAC	140 / ID	02/04	O	BNSF
13	No longer used	---	---	-	---
14	Position	219 / AN	01/03	O	
15	Equipment Length	567 / N0	04/05	O	Format is Feet/Inches (40 foot reflected at 4000)
16	Tare Qualifier	571 / ID	01/01	C	
17	No longer used	---	---	-	---
18	Intermodal Check Digit	761 / N0	01/01	O	
19	No longer used	---	---	-	---
20	Height	65 / R	01/08	O	
21	Width	189 / R	01/08	O	
22	Equipment Type	24 / ID	04/04	O	
23	SCAC	140 / ID	02/04	O	
24	Car Type Code	301 / ID	01/04	O	

Note: If equipment information regarding weight, length, and ownership is not provided, BNSF refers to the UMLER equipment register to determine the above. If equipment is not registered there, it uses internal reference files based on past shipments on BNSF. If not found there, billing information will suspend for manual verification.

***SEGMENT EM—Equipment Characteristics*****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT IS NOT USED BY BNSF*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Weight Unit Code	188 / ID	01/01	C	
2	Weight	81 / R	01/10	O	
3	Volume Unit Qualifier	184 / ID	01/01	C	
4	Volume	183 / R	01/08	O	
5	Country Code	26 / ID	02/03	O	
6	Construction Type	1429 / ID	01/01	O	
7	Date	373 / DT	08/08	O	

**SEGMENT VC—Motor Vehicle Control****OPTIONAL**

Maximum Use: 21 (per loop)

Example: VC\*VINNUMBER1234567

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Vehicle Identification Number	539 / AN	01/25	M	
2	Deck Position	836 / ID	02/02	O	
3	Vehicle Type	837 / ID	01/01	O	
4	Dealer Code	838 / AN	02/09	O	
5	Route Code	1 / AN	01/13	O	
6	No longer used	---	---	-	
7	No longer used	---	---	-	
8	No longer used	---	---	-	
9	No longer used	---	---	-	
10	Factory Car Order Number	583 / AN	06/10	O	
11	No longer used	---	---	-	

**SEGMENT N1-Name****MANDATORY**

Maximum Use: 1 (10 Loops of N1, N2, N3, N4 &amp; PER)

Example: N1\*SH\*ACME COMPANY

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE VC SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Entity ID Code	98 / ID	02/02	M	See list below
2	Name	93 / AN	01/35	C	
3	ID Code Qualifier	66 / ID	01/02	C	C5 - CIF number FI - Tax number of bond holder (used for auto import shipments from Canada)
4	ID Code	67 / AN	02/20	C	
5	Entity Relat Code	706 / ID	02/02	O	
6	Entity ID Code	98 / ID	02/02	O	

- 11 Rule 11 (converted to RU by BNSF application)
- AD Advise
- AO Account of
- AP Account of (Origin party)
- AQ Account of (Destination party)
- BN Beneficial owner (converted to BO by BNSF application)
- C1 In care of party #1 (converted to CO by BNSF application)
- CB Customs broker.
- CD Consignee-Advise of consigned shipment-used for written orders (converted to DO by BNSF application)
- CN Consignee. (Where the car will be spotted for unloading if there is no C1 segment).
- CV Converting Party for Intermodal Safe Container Act compliance (see Appendix 2)
- LP Co-loader (converted to LD by BNSF application)
- NC Notify crosstown switch (highway)
- NP Notify party for shippers orders
- N1 Notify (converted to NO by BNSF application)
- N2 Release to (converted to RE by BNSF application)
- OO Order of - Shippers orders (converted to SO by BNSF application)
- PF Party to receive freight bill (converted to TP by BNSF application)
- PU Party at pick-up location
- PV Certifying party for Intermodal Safe Container Act compliance (see Appendix 2)
- RD Destination ramp
- RE Release to patron (shipper order / delivery order)
- RO Origin ramp
- SF Ship from (converted to PP by BNSF application)
- SH Shipper.
- SU Supplier/manufacturer
- TT Transfer to
- UC Ultimate consignee (converted to FD in BNSF application)

***SEGMENT N3–Address Information*****OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: N3\*1234 Main Street

NOTE: *THIS IS THE N1 LOOP AS IT PERTAINS TO THE VC SEGMENT.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Address	166 / AN	01/35	M	
2	Address	166 / AN	01/35	O	

***SEGMENT N4–Geographic Location*****OPTIONAL**

Maximum Use: 1 (per loop)

Example: N4\*DALLAS\*TX\*77075

NOTE: *THIS IS THE NI LOOP AS IT PERTAINS TO THE VC SEGMENT.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	O	
2	State/Province	156 / ID	02/02	O	
3	Postal Code	116/ ID	03/15	O	
4	Country Code	26 / ID	02/03	O	
5	Location Qualifier	309 / ID	01/02	C	
6	Location Identifier	310 / AN	01/30	C	

***SEGMENT H3– Special Handling Instructions*****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT WITHIN THIS LOOP NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Special Handling Code	152 /ID	02/03	O	
2	No longer used	---	---	-	
3	No longer used	---	---	-	
4	No longer used	---	---	-	
5	No longer used	---	---	-	



**SEGMENT M7–Seal Number****OPTIONAL**

Maximum Use: 1 (5 per loop)

Example: M7\*SEAL1233456

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Seal Number	225 / AN	02/15	M	
2	Seal Number	225 / AN	02/15	O	
3	Seal Number	225 / AN	02/15	O	
4	Seal Number	225 / AN	02/15	O	

***SEGMENT N5–Car Ordered*****OPTIONAL**

Maximum Use: 1 (per loop)

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Equipment Length	567 / N0	04/05	O	
2	Weight Capacity	233 / N0	02/03	O	
3	Cubic Capacity	203 / N0	02/04	O	
4	Car Type Code	301 / ID	01/04	O	
5	No longer used	---	---	-	
6	Height	65 / R	01/08	O	

**SEGMENT IC–Intermodal Chassis Equipment****OPTIONAL**

Maximum Use: 1 (per loop)

Example: IC\*ABCD\*123456\*5000\*M\*XXXX\*2800\*XXXX\*DF

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Equipment Initial	206 / AN	01/04	M	
2	Equipment Number	207 / AN	01/10	M	
3	Tare Weight	167 / N0	03/08	C	
4	Tare Qualifier Code	571 / ID	02/04	O	A - actual M - marked
5	SCAC	140 / ID	02/04	O	
6	Equipment Length	567 / N0	04/05	O	Length of equipment indicating feet and inches (displayed as FFII)
7	SCAC	140 / ID	02/04	O	
8	Chassis Type	845 / ID	02/02	O	8P - eight pin combo DF - drop frame FB - flush back GN - goose neck SF - straight frame SL - slider TX - tri-axle

***SEGMENT IM–Intermodal Information*****OPTIONAL**

Maximum Use: 1 (per loop)

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Water Movement	533 / ID	01/01	O	
2	Special Handling Code	152 /ID	02/03	O	
3	Inland Transportation	534 / ID	02/02	O	

**SEGMENT M12–In-Bond Identifying Information****OPTIONAL**

Maximum Use: 2

Example: M12\*61\*1234567\*NA\*\*\$20PER\*\*\*S4

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Entry Code	581 / ID	02/02	M	61 - IT Number 62 - TE Number
2	Entry Number	601 / AN	01/15	C	
3	Location Identifier	310 / AN	01/30	O	
4	Location Identifier	310 / AN	01/30	O	
5	Customers Shipment Value	602 / AN	02/08	O	
6	In-Bond Control Number	603 / AN	01/25	C	
7	No longer used	---	---	-	
8	Reference Number Qualifier	128 / ID	02/03	C	BI - carrier bond S4 - shipper bond XC - Canadian bond If no bond ownership is provided, BNSF assumes shipper owned bond.
9	Reference Number	127 / AN	01/30	C	Contains the IRS number of the bond holder identified in the M1208
10	Transport Type Code	91 / ID	01/02	C	
11	Vessel Name	182 / AN	02/28	C	

NOTE: This segment is mandatory for all rail in-bond shipments. M1206 contains the conventional in-bond number. If this number is unknown, pass UNKNOWN here.

***SEGMENT E1–Empty Car Disposition Pended Destination Consignee*****OPTIONAL**

Maximum Use: 1

Example: E1\*C5\*1234567890

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Name	459 / AN	02/30	M	
2	ID Qualifier	66 / ID	01/02	C	C5 - CIF Number qualifier
3	ID Code	67 / AN	02/30	C	CIF Number

***SEGMENT E4–Empty Car Disposition Pended Destination City*****OPTIONAL**

Maximum Use: 1

Example: E4\*DALLAS\*TX\*75755

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	M	
2	State / Province	156 / ID	02/02	M	
3	Postal Code	116 / ID	03/15	O	
4	Country	26 / ID	02/03	O	

***SEGMENT E5–Empty Car Disposition Pended Destination Route*****OPTIONAL**

Maximum Use: 13

Example: E5\*UP\*I

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	SCAC	140 / ID	02/04	M	
2	Routing Code	133 / ID	01/02	M	A - agents route D - delivery switch I - origin switch S - shippers route V - intermediate switch
3	City Name	19 / AN	02/30	O	
4	SPLC	154 / ID	06/09	O	



***SEGMENT PI–Price Authority Information*****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT WITHIN THIS LOOP NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number	128 / ID	02/03	M	
2	Reference Number	127 / AN	01/30	M	
3	Primary Pub Authority	436 / ID	02/02	O	
4	Regulatory Agency Code	930 / ID	03/05	O	
5	Tariff Agency Code	168 / ID	01/04	O	
6	Issuing Carrier ID	965 / AN	01/10	O	
7	Contract Suffix	660 / AN	01/02	O	
8	Tariff Item Number	169 / AN	01/16	O	
9	Tariff Supp ID	173 / AN	01/04	O	
10	Tariff Section	172 / AN	01/02	O	
11	Contract Suffix	660 / AN	01/02	O	
12	Date	373 / DT	08/08	O	
13	Date	373 / DT	08/08	O	
14	Alternation Preced Code	629 / ID	01/01	O	
15	Alternation Preced Code	629 / ID	01/01	O	

**SEGMENT GA**–Canadian Grain Information**OPTIONAL**

Maximum Use: 15

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Fumigated Cleaned ID	1275 / ID	01/01	O	
2	Commodity Code	22/ AN	01/30	O	
3	Inspected/Wgt Indic Code	1576 / ID	01/02	O	
4	Reference Qualifier	128 / ID	02/03	C	
5	Reference Number	127 / ID	01/30	O	
6	Week	642 / N0	01/02	O	
7	Unload Terminal	899 / ID	03/03	O	
8	Date	373/ DT	08/08	O	
9	Number of Cars	1470 / N0	01/09	O	
10	Match Sep Indicator Code	1276 / ID	02/02	O	
11	CWB Market Class Code	1277 / ID	01/01	O	
12	CWB Market Type Code	1278 / ID	01/01	O	
13	Y/N Condition Response Code	1073 / ID	01/01	O	
14	Location Identifier	310 / AN	01/30	O	
15	State/Province	156 / ID	02/02	O	
16	% Qualifier	1004 / ID	01/02	C	
17	%	954 / R	01/10	C	

***SEGMENT REF—Reference Identification*****OPTIONAL**

Maximum Use: 1

Example: REF\*PN\*1234567890

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	OB - ocean bill of lading PN - permit number ZZ - mutually defined
2	Reference Number	127 / AN	01/30	C	Any value in this field beginning with COT will be used as the BNSF COTS program reference number.

There is another REF segment found within the N1 loop under 4010 standards. BNSF recommends the use of this REF segment/loop for reference identification information.

***SEGMENT N10–Quantity and Description*****OPTIONAL**

Maximum Use: 15

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Quantity	380 / R	01/15	O	
2	Free Form Description	369 / AN	01/45	O	
3	Marks and Numbers	87 / AN	01/48	O	
4	Commodity Code Qualifier	23 / AN	01/48	C	
5	Commodity Code	22 / AN	01/30	C	
6	Customs Shipment Value	602 / AN	02/08	C	
7	Weight Unit Code	188 / ID	01/01	C	
8	Weight	81 / R	01/10	C	
9	Reference Number	127 / AN	01/03	O	
10	Manifest Unit Code	599 / ID	01/03	O	
11	Country Code	26 / ID	02/03	O	
12	Country Code	26 / ID	02/03	O	
13	Currency Code	100 / ID	03/03	C	

**SEGMENT N1-Name****OPTIONAL**

Maximum Use: 1

Example: N1\*SH\*ACME COMPANY

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE REF SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Entity ID Code	98 / ID	02/02	M	See list below
2	Name	93 / AN	01/35	C	
3	ID Code Qualifier	66 / ID	01/02	C	C5 - Customer ID file number FI - Federal taxpayer ID number
4	ID Code	67 / AN	02/20	C	
5	No longer used	----	---	-	
6	No longer used	----	---	-	

11 Rule 11 (converted to RU by BNSF application)  
 AD Advise  
 AO Account of  
 AP Account of (Origin party)  
 AQ Account of (Destination party)  
 BN Beneficial owner (converted to BO by BNSF application)  
 C1 In care of party #1 (converted to CO by BNSF application)  
 CB Customs broker.  
 CD Consignee-Advise of consigned shipment-used for written orders (converted to DO by BNSF application)  
 CN Consignee. (Where the car will be spotted for unloading if there is no C1 segment).  
 CV Converting Party for Intermodal Safe Container Act compliance (see Appendix 2)  
 LP Co-loader (converted to LD by BNSF application)  
 NC Notify crosstown switch (highway)  
 NP Notify party for shippers orders  
 N1 Notify (converted to NO by BNSF application)  
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 OO Order of - Shippers orders (converted to SO by BNSF application)  
 PF Party to receive freight bill (converted to TP by BNSF application)  
 PU Party at pick-up location  
 PV Certifying party for Intermodal Safe Container Act compliance (see Appendix 2)  
 RD Destination ramp  
 RE Release to patron (shipper order / delivery order)  
 RO Origin ramp  
 SF Ship from (converted to PP by BNSF application)  
 SH Shipper.  
 SU Supplier/manufacturer  
 TT Transfer to  
 UC Ultimate consignee (converted to FD in BNSF application)

***SEGMENT N3–Address Information*****OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: N3\*1234 Main Street

NOTE: *THIS IS THE N1 LOOP AS IT PERTAINS TO THE REF SEGMENT.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Address	166 / AN	01/35	M	
2	Address	166 / AN	01/35	O	

**SEGMENT N4–Geographic Location****OPTIONAL**

Maximum Use: 1 (per loop)

Example: N4\*DALLAS\*TX\*77075

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE REF SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	O	
2	State/Province	156 / ID	02/02	O	
3	Postal Code	116/ ID	03/15	O	
4	Country Code	26 / ID	02/03	O	
5	No longer used	----	---	-	
6	No longer used	----	---	-	

***SEGMENT NA–Cross Reference Equipment*****OPTIONAL**

Maximum Use: 10

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/02	M	
2	Reference Number	127 / AN	01/30	C	
3	Equipment Initial	206 / AN	01/04	M	
4	Equipment Number	207 / AN	01/10	M	
5	Cross Reference Type	231 / ID	01/01	O	
6	No longer used	---	---	-	
7	SCAC	140 / ID	01/04	O	
8	Equipment Length	567 / N0	04/05	O	
9	SCAC	140 / ID	02/04	O	
10	No longer used	---	---	-	
11	Y/N Condition Response Code	1073 / ID	01/01	O	



**SEGMENT F9–Origin Station****MANDATORY**

Maximum Use: 1

Example: F9\*\*CHICAGO\*IL

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	FSAC	573 / ID	01/05	O	
2	City	101 / AN	02/30	M	<b>BNSF supports 19 character max</b>
3	State/Province	156 / ID	02/02	M	
4	No longer used	---	---	-	
5	FSAC	573 / ID	01/15	O	
6	City	19 / AN	02/19	O	
7	State/Province	156 / ID	02/02	O	
8	SPLC	154 / ID	06/09	O	<b>BNSF supports 6 character max</b>
9	Postal Code	116 / ID	03/15	O	

**SEGMENT D9**–*Destination Station***MANDATORY**

Maximum Use: 1

Example: D9\*\*CHICAGO\*IL

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	FSAC	573 / ID	01/05	O	
2	City	19 / AN	02/30	M	<b>BNSF supports 19 character max</b>
3	State/Province	156 / ID	02/02	M	
4	No longer used	---	---	-	
5	FSAC	573 / ID	01/06	O	
6	Name	19 / AN	02/30	O	
7	State/Province	156 / ID	02/02	O	
8	SPLC	154 / ID	06/09	O	<b>BNSF supports 6 character max</b>
9	Postal Code	116 / ID	03/15	O	

**SEGMENT N1-Name****MANDATORY**

Maximum Use: 1 (10 Loops of N1, N2, N3, N4 & PER)  
 At least two are required to indicate the Shipper and Consignee)

Example: N1\*SH\*ACME COMPANY

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Entity ID Code	98 / ID	02/02	M	See list below
2	Name	93 / AN	01/35	C	
3	ID Code Qualifier	66 / ID	01/02	C	
4	ID Code	67 / AN	02/20	C	
5	Entity Relat Code	706 / ID	02/02	O	
6	Entity ID Code	98 / ID	02/02	O	

11 Rule 11 (converted to RU by BNSF application)  
 AD Advise  
 AO Account of  
 AP Account of (Origin party)  
 AQ Account of (Destination party)  
 BN Beneficial owner (converted to BO by BNSF application)  
 C1 In care of party #1 (converted to CO by BNSF application)  
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 SF Ship from (converted to PP by BNSF application)  
 SH Shipper.  
 SU Supplier/manufacturer  
 TT Transfer to  
 UC Ultimate consignee (converted to FD in BNSF application)

***SEGMENT N2–Additional Name Information*****OPTIONAL**

Maximum Use: 2 (per loop)

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Name	93 / AN	01/35	M	
2	Name	93 / AN	01/35	O	

***SEGMENT N3–Address Information*****OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: N3\*1234 Main Street

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Address	166 / AN	01/35	M	
2	Address	166 / AN	01/35	O	

***SEGMENT N4–Geographic Location*****OPTIONAL**

Maximum Use: 1 (per loop)

Example: N4\*DALLAS\*TX\*77075

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	O	
2	State/Province	156 / ID	02/02	O	
3	Postal Code	116/ ID	03/15	O	
4	Country Code	26 / ID	02/03	O	
5	Location Qualifier	309 / ID	01/02	C	
6	Location Identifier	310 / AN	01/30	C	

**SEGMENT REF - Reference Identification****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	
2	Reference Number	127 / AN	01/30	C	
3	Description	352 / AN	01/80	O	
4	Reference Number Qualifier	128 / ID	02/03	O	

***SEGMENT PER-ADMINISTRATIVE COMMUNICATIONS CONTACT***  
**OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: PER\*NT\*\*TE\*111-222-3333

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Contact Function Code	366 / ID	02/02	M	NT - notify
2	Name	93 / AN	01/60	O	
3	Communication Number Qualifier	365 / ID	02/02	C	TE - telephone
4	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
5	Communication Number Qualifier	365 / ID	02/02	C	
6	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
7	Communication Number Qualifier	365 / ID	02/02	C	
8	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
9	Contact Inquiry Reference	443 / AN	01/20	O	



**SEGMENT BL-Billing Information****OPTIONAL**

Maximum Use: 12

NOTE: THIS SEGMENT IS NOT USED BY BNSF.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Rebill Reason Code	747 / ID	02/02	M	
2	FSAC	573 / ID	01/05	X	
3	FSAC	573 / ID	01/05	X	
4	SPLC	154 / ID	06/09	X	
5	City	19 / AN	02/30	X	
6	State/Province	156 / AN	02/02	X	
7	Country Code	26 / ID	02/03	O	
8	SPLC	154 / ID	06/09	X	
9	City	19 / AN	02/30	X	
10	State/Province	156 / ID	02/02	X	
11	Country Code	26 / ID	02/03	O	
12	SCAC	140 / ID	02/04	O	
13	SCAC	140 / ID	02/04	O	
14	SCAC	140 / ID	02/04	O	
15	SCAC	140 / ID	02/04	O	
16	SCAC	140 / ID	02/04	O	
17	SCAC	140 / ID	02/04	O	

**SEGMENT S1 - Stop Off Name****OPTIONAL**

Maximum Use: 1

Example: S1\*1\*PACKERS WAREHOUSE\*\*\*BNSF\*P

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Stop Sequence Number	165 / N0	01/02	M	Stop sequence number (in order of accomplishment)
2	Name	459 / AN	02/30	M	
3	ID Code Qualifier	66 / ID	01/02	C	
4	ID Code	67 / AN	02/20	C	
5	SCAC	140 / ID	02/04	O	BNSF
6	Accomplishment	190 / ID	01/01	M	

***SEGMENT S2-Stop Off Address*****OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: S2\*1\*1234 THIRD STREET

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Stop Sequence Number	165 / N0	01/02	M	Stop sequence number (in order of accomplishment). This should match the associated S1 segment sequence number.
2	Address	166 / AN	01/30	M	
3	Address	166 / AN	01/30	O	Additional delivery information

**SEGMENT S9–Stop off Station****OPTIONAL**

Maximum Use: 1

Example: S9\*1\*\*BILLINGS\*MT\*\*PU

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Stop Sequence Number	165 / N0	01/02	M	Stop sequence number (in order of accomplishment). This should match the associated S1 segment sequence number.
2	SPLC	154 / ID	06/09	O	
3	City	19 / AN	02/30	M	Rail station where stop will occur. <b>BNSF supports 19 character max.</b>
4	State / Province	156 / ID	02/02	M	State or province of rail station.
5	Country Code	26/ ID	02/03	O	
6	Stop Reason	163 / ID	02/02	M	See list below
7	Location Qualifier	309 / ID	01/02	C	
8	Location Identifier	310 / AN	01/30	C	

Note: BNSF will weigh equipment at the first available scale.

BO	Bad order
CI	Stop for customs inspection
CN	Stop for lading consolidation
CN	Clean-steam or conditioning
CR	Hold for clearance
DC	Diversion/reconsignmentparty responsible
DR	Diversion/reconsignment
DS	Deliver on order of shipper
FC	Flip chassis
FD	Comments for final destination
FL	Finish loading
GA	Galvanizing
GI	Stop for grain inspection
HP	Heat prior to loading
HT	Heat
IC	Ice
IN	Inspection
PI	Ice prior to loading
PL	Loading (part or complete)
PU	Unloading (part or complete)
TD	Transloaded lading destination
TF	Lading transfer accomplished
TL	Stop for transloading
TO	Transloading off line
WE	Weigh this car when made empty
WG	Weigh
WO	Weigh to check overload

**SEGMENT N1–Name****MANDATORY**

Maximum Use: 1 (10 Loops of N1, N2, N3, N4 &amp; PER)

Example: N1\*SH\*ACME COMPANY

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE S1 SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Entity ID Code	98 / ID	02/02	M	
2	Name	93 / AN	01/35	C	
3	ID Code Qualifier	66 / ID	01/02	C	
4	ID Code	67 / AN	02/20	C	
5	Entity Relat Code	706 / ID	02/02	O	
6	Entity ID Code	98 / ID	02/02	O	

11 Rule 11 (converted to RU by BNSF application)  
 AD Advise  
 AO Account of  
 AP Account of (Origin party)  
 AQ Account of (Destination party)  
 BN Beneficial owner (converted to BO by BNSF application)  
 C1 In care of party #1 (converted to CO by BNSF application)  
 CB Customs broker.  
 CD Consignee-Advise of consigned shipment-used for written orders (converted to DO by BNSF application)  
 CN Consignee. (Where the car will be spotted for unloading if there is no C1 segment).  
 CV Converting Party for Intermodal Safe Container Act compliance (see Appendix 2)  
 LP Co-loader (converted to LD by BNSF application)  
 NC Notify crosstown switch (highway)  
 NP Notify party for shippers orders  
 N1 Notify (converted to NO by BNSF application)  
 N2 Release to (converted to RE by BNSF application)  
 OO Order of - Shippers orders (converted to SO by BNSF application)  
 PF Party to receive freight bill (converted to TP by BNSF application)  
 PU Party at pick-up location  
 PV Certifying party for Intermodal Safe Container Act compliance (see Appendix 2)  
 RD Destination ramp  
 RE Release to patron (shipper order / delivery order)  
 RO Origin ramp  
 SF Ship from (converted to PP by BNSF application)  
 SH Shipper.  
 SU Supplier/manufacturer  
 TT Transfer to  
 UC Ultimate consignee (converted to FD in BNSF application)

***SEGMENT N2–Additional Name Information*****OPTIONAL**

Maximum Use: 2

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Name	93 / AN	01/35	M	
2	Name	93 / AN	01/35	O	

***SEGMENT N3–Address Information*****OPTIONAL**

Maximum Use: 1 (2 per loop)

Example: N3\*1234 Main Street

NOTE: *THIS IS THE N1 LOOP AS IT PERTAINS TO THE S1 SEGMENT.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Address	166 / AN	01/35	M	
2	Address	166 / AN	01/35	O	

**SEGMENT N4–Geographic Location****OPTIONAL**

Maximum Use: 1 (per loop)

Example: N4\*DALLAS\*TX\*77075

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE S1 SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	O	
2	State/Province	156 / ID	02/02	O	
3	Postal Code	116/ ID	03/15	O	
4	Country Code	26 / ID	02/03	O	
5	Location Qualifier	309 / ID	01/02	C	
6	Location Identifier	310 / AN	01/30	C	



**SEGMENT PER-ADMINISTRATIVE COMMUNICATIONS CONTACT****OPTIONAL**

Maximum Use: 1(2 per loop)

Example: PER\*NT\*\*TE\*111-222-3333

NOTE: THIS IS THE N1 LOOP AS IT PERTAINS TO THE S1 SEGMENT.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Contact Function Code	366 / ID	02/02	M	NT - notify
2	Name	93 / AN	01/35	O	
3	Communication Number Qualifier	365 / ID	02/02	C	TE - telephone
4	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
5	Communication Number Qualifier	365 / ID	02/02	C	
6	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
7	Communication Number Qualifier	365 / ID	02/02	C	
8	Communication Number	364 / AN	01/80	C	<b>BNSF supports min/max of 01/10.</b>
9	Contact Inquiry Reference	443 / AN	01/20	O	

**SEGMENT R2–Route Information****MANDATORY**

Maximum Use: 13

Example: R2\*BNSF\*S\*BMONT\*\*\*R  
 R2\*UP\*1 (CARLOAD)

R2\*BNSF\*S\*\*\*25\*X (INTERMODAL)

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	SCAC	140 / ID	02/04	M	BNSF
2	Sequence Code	133 / ID	01/02	M	This code indicates the order of the routing. Valid codes for the first R2 segment include the list below. Subsequent R2s (to indicate further interline movement) are indicated numerically. D - destination switch carrier S - shippers route R - rule 11 A - agents route I - if used, the carrier at origin will receive origin switch billing information used in handling the equipment properly.
3	City Name	19 / AN	02/30	M	Refer to the AAR Rule 260 Junction abbreviations.
4	SPLC	154 / ID	06/09	O	BNSF supports 6 character max.
5	Intermodal Service Code	177/ ID	01/02	C	see options below
6	Mode	91 / ID	01/02	O	R - railcar X - intermodal
7	Intermediate Switch Carrier	296 / ID	02/04	C	
8	Intermediate Switch Carrier	296 / ID	02/04	O	Cannot have second intermediate switch without first intermediate switch.
9	No longer used	---	---	-	
10	No longer used	---	---	-	
11	No longer used	---	---	-	
12	No longer used	---	---	-	
13	No longer used	---	---	-	

R2 segment, 177 element contents.

- 15 Motor carrier, ramp to ramp
- 20 Rail owned equipment, door to door service.
- 22 Rail owned equipment, door to ramp service.
- 25 Rail owned equipment, ramp to ramp service.
- 27 Rail owned equipment, ramp to door service.
- 40 Steamship owned equipment moving domestically, door to door service.
- 42 Steamship owned equipment moving domestically, door to ramp service.
- 45 Steamship owned equipment moving domestically, ramp to ramp service.
- 47 Steamship owned equipment moving domestically, ramp to door service.
- 60 Private owned equipment, door to door service.
- 62 Private owned equipment, door to ramp service.
- 65 Private owned equipment, ramp to ramp service.
- 67 Private owned equipment, ramp to door service.
- 80 Steamship owned equipment moving internationally, door to door service.
- 82 Steamship owned equipment moving internationally, door to ramp service.
- 85 Steamship owned equipment moving internationally, ramp to ramp service.
- 87 Steamship owned equipment moving internationally, ramp to door service.

**SEGMENT R9–Route Code****OPTIONAL**

Maximum Use: 1

NOTE: THIS SEGMENT IS NOT USED BY BNSF.

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Route Code	1 / AN	01/03	M	
2	Agent/Shipper Routing Code	192 / ID	01/01	O	
3	Intermodal Service Code	177 / ID	01/02	O	
4	SCAC	140 /ID	02/04	O	
5	Action Code	306 /ID	01/02	O	
6	SCAC	140 /ID	02/04	O	

***SEGMENT E1–Empty Car Disposition Pended Destination Consignee*****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT WITHIN THIS LOOP IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Name	459 / AN	02/30	M	
2	ID Qualifier	66 / ID	01/02	C	
3	ID Code	67 / AN	02/20	C	

***SEGMENT E4–Empty Car Disposition Pended Destination City*****OPTIONAL**

Maximum Use: 1

NOTE: *THIS SEGMENT WITHIN THIS LOOP IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	City	19 / AN	02/30	M	
2	State / Province	156 / ID	02/02	M	
3	Postal Code	116 / ID	03/15	O	
4	Country	26 / ID	02/03	O	

***SEGMENT E5–Empty Car Disposition Pended Destination Route*****OPTIONAL**

Maximum Use: 13

NOTE: *THIS SEGMENT WITHIN THIS LOOP IS NOT USED BY BNSF*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	SCAC	140 / ID	02/04	M	
2	Routing Code	133 / ID	01/02	M	
3	City Name	19 / AN	02/30	O	
4	SPLC	154 / ID	06/09	O	

***SEGMENT PI–Price Authority Information*****OPTIONAL**

Maximum Use: 1

**NOTE: THIS SEGMENT WITHIN THIS LOOP IS NOT USED BY BNSF**

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	
2	Reference Number	127 / AN	01/30	M	
3	Primary Pub Authority	436 / ID	02/02	O	
4	Regulatory Agency Code	930 / ID	03/05	O	
5	Tariff Agency Code	168 / ID	01/04	O	
6	Issuing Carrier ID	965 / AN	01/10	O	
7	Contract Suffix	660 / AN	01/02	O	
8	Tariff Item Number	169 / AN	01/16	O	
9	Tariff Supp ID	173 / AN	01/04	O	
10	Tariff Section	172 / AN	01/02	O	
11	Contract Suffix	660 / AN	01/02	O	
12	Date	373 / DT	08/08	O	
13	Date	373 / DT	08/08	O	
14	Alternation Preced Code	629 / ID	01/01	O	
15	Alternation Preced Code	629 / ID	01/01	O	



**SEGMENT H3–Special Handling****OPTIONAL**

Maximum Use: 6

Example: H3\*UN

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Special Handling Code	152 /ID	02/03	O	See list below
2	No longer used	---	---	-	
3	No longer used	---	---	-	
4	No longer used	---	---	-	
5	No longer used	---	---	-	

AV	Annual volume
BN	If bad order, notify shipper
CI	Customs inspection
CY	Certification equipment is used for recycling
DS	Delivery orders
DU	Do not uncouple
ER	Return via empty reverse route
FC	For furtherance
GI	Hold for inspection
HE	Head end only
HV	High value
HW	Extreme dimension - high, wide
IB	Inbond (if no ownership indicated in M12 segment, bond assumed to be held by shipper)
IS	Rail surveillance required (for military shipments)
LC	Car trip lease to consignee
LF	Loaded to full visible capacity
LS	Handle in local service only
NH	Do not hump
NT	Do not transfer contents
OO	Shippers orders
PD	Private equipment subject to demurrage
PU	Cryogenic shipment (does not require temperature further information in the PS segment)
RR	Rear end only
UN	Unload as placarded
WI	Waive inspection

**SEGMENT PS–Protective Service Instruction****OPTIONAL**

Maximum Use: 5

Example: PS\*800\*M\*FA\*32

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Protective Service Rule	746 / ID	03/09	M	see list on following page for available options
2	Protective Service	241 / ID	01/04	M	B - body ice BC - body ice consumed or removed D - discontinue service HDN - do not heat HDNC - do not heat in Canada HSC - standard heating in Canada M - standard mechanical protective service MN - modified mechanical protective service MNU - do not operate
3	Unit of Measure Code	355 / ID	02/02	C	FA - fahrenheit CE - centigrade If PS03 present, then PS04 is required.
4	Temperature	408 / R	01/04	C	Negative temperatures are accepted if preceded by minus (-) indicator. If PS04 present, then PS03 is required.
5	SCAC	140 / ID	02/04	O	
6	FSAC	573 / ID	01/05	O	
7	City Name	19 / AN	02/30	O	
8	State/Province	156 / AN	02/02	O	
9	No longer used	---	---	-	
10	Pre-cooled Rule (710)	745 / ID	01/01	O	
11	Yes/No Condition Response Code	1073 / ID	01/01	O	
12	Yes/No Condition Response Code	1073 / ID	01/01	O	
13	Yes/No Condition Response Code	1073 / ID	01/01	O	
14	Yes/No Condition Response Code	1073 / ID	01/01	O	

Note: Data Element 746 - Rules - will be reflected in BNSF applications on the special comments Movement 1 profile within BNSF application systems.

**Element 746 Protective service rules \*****Rule Description**

- 226 Stop for icing.
  - 240 Initially iced by shipper- Do not reice.
  - 242 Top Iced by shipper at origin.
  - 245 Precooled and preiced by shipper- Do not reice.
  - 509 Modified Carrier's Protective Service (Intrastate only).
  - 510 Shipper's Protective Service.
  - 515 Carrier's Protective Service.
  - 580 Special heater protective service.
  - 705 Optimum temperature of zero degrees or less.
  - 710 Optimum temperature above zero.
  - 711 Place under modified MPS at first regular inspection station.
  - 712 Shippers's specified MPS at origin or stop point.
  - 715 Optimum temperature of zero degrees or less (Car owned /Leased by shipper).
  - 720 Do not operate unit.
  - 765 Optimum temperature above zero. Body iced by shipper.
  - 805 Optimum temperature above zero.
  - 810 Ventilators opened at origin.
  - 830 Optimum temperature of zero degrees or less.
- \*If unknown use 800 for Intermodal or 705 for Carload Frozen or 710 for Carload Non-frozen.

***SEGMENT LX–Assigned Number*****MANDATORY**

Maximum Use: 1

Example: LX\*1000

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Assigned Number	554 / N0	01/06	M	

**SEGMENT L5–Descriptions, Marks, and Numbers****MANDATORY**

Maximum Use: 15 (per loop)

Example: L5\*01\*BOILER PARTS,NEC,CAST IRO\*3443360\*T

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Line Number	213N0	01/03	O	Line number for the associated commodity
2	Lading Description	79 / AN	01/50	O	
3	Commodity Code	22 / AN	01/16	C	Standard Transportation Commodity Code - STCC - that describes the lading. <b>BNSF supports 7 character max</b>
4	Commodity Code Qualifier	23 / ID	01/01	C	T STCC of the current commodity L STCC of the last contained commodity * L is used when billing private empty equipment. Use in conjunction with an E in the BX07.
5	Packaging Code	103/ ID	05/05	O	
6	Marks - Numbers	87 / AN	01/45	O	
7	Marks - Number	88/ ID	01/02	O	
8	Commodity Code Qualifier	23 / ID	01/01	C	
9	Commodity Code	22/ AN	01/16	C	
10	Compartment ID Code	595 / IDH	01/01	O	

NOTE: The L504 indicates loaded vs empty status. BNSF uses the BX07 as the element to determine load versus empty shipment.

If the L503 begins with a 49 series STCC number, then supporting LH segments become necessary.

**SEGMENT L0—Line Item, Quantity, and Weight****OPTIONAL**

Maximum Use: 10 (per loop)

Example: L0\*1\*\*\*80000\*N\*\*\*1\*CLD

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Line Number	213/N0	01/03	O	Line number for the associated L5 segment
2	Rated Quantity	220/R	01/11	C	
3	Quantity Qualifier	221/ ID	02/02	C	
4	Weight	81 / R	01/10	C	Weight of commodity for the entire shipment (if multiple bill - reflecting M in BNX03).
5	Weight Qualifier	187 / ID	01/02	C	N - net All weights provided in this segment are assumed to be net.
6	Volume	183 / R	01/08	C	
7	Volume Qualifier	184 / ID	01/01	C	
8	Lading Quantity	80 / N0	01/07	C	Number of car/trailer load equivalents in this transaction
9	Packaging Form Code	211 / ID	03/03	C	See below
10	Dunnage Description	458 / AN	02/25	O	
11	Weight Unit Code	188 / ID	01/01	O	
12	Type of Service Code	56 / ID	02/02	O	
13	Quantity	380 / R	01/15	C	
14	Packaging Form Code	211 / ID	03/03	O	
15	Y/N Condition Response	1073 / ID	01/01	C	

NOTE: BNSF relies on the weight in the N7 to determine the weight of the shipment. If no N7 weight is used, BNSF uses the weight in the L0 and assumes net weight.

**Quantity Qualifiers:**

AMM Ammo Pack  
 BAG Bag  
 BAL Bale  
 BBL Barrel  
 BDL Bundle  
 BEM Beam  
 BIC Bing Chest  
 BIN Bin  
 BKG Bulk Bag  
 BLK Bulk  
 BOB Bobbin  
 BOT Bottle  
 BOX Box  
 BRG Barge

## BNSF 404 Implementation Guideline

BSK	Basket or hamper
BXI	Box, with inner container
BXT	Bucket
CAB	Cabinet
CAG	Cage
CAN	Can
CAR	Carrier
CAS	Case
CBC	Containers of Bulk Cargo
CBY	Carboy
CCS	Can Case
CHE	Cheeses
CHS	Chest
CLD	Car Load, Rail
CNA	Household Goods Containers, Wood
CNB	Container, MAC-ISO (Military Airlift Container - International Standards Organization)
CNC	Container, Navy Cargo Transporter
CND	Container, Commercial Highway Lift
CNE	Engine Container
CNF	Multiwall Container Secured to Warehouse Pallet
CNT	Container
CNX	CONEX - Container Express
CON	Cones
COR	Core
CRD	Cradle
CRT	Crate
CTN	Carton
CUB	Cube
CYL	Cylinder
DBK	Dry Bulk
DRK	Double-length Rack
DRM	Drum
DSK	Double-length Skid
DTB	Double-length Tote Bin
DUF	Duffle Bag
ENV	Envelope
FIR	Firkin
FLO	Flo-bin
FLX	Liner Bag Liquid
FRM	Frame
FSK	Flask
FWR	Forward Reel
GOH	Garments on Hangers
HED	Heads of Beef
HGH	Hogshead
HPR	Hamper
HPT	Hopper Truck
HRB	On Hanger or Rack in Boxes
HRK	Half-standard Rack
HTB	Half-Standard Tote Bin
JAR	Jar
JUG	Jug
KEG	Keg
KIT	Kit
KRK	Knockdown Rack
KTB	Knockdown Tote Bin
LBK	Liquid Bulk
LIF	Lifts
LOG	Log
LSE	Loose
LUG	Lug
LVN	Lift Van
MLV	MILVAN - Military Van
MRP	Multi-Roll Pack

## BNSF 404 Implementation Guideline

MSV	MSCVAN - Military Sealift Command Van
MXD	Mixed Type Pack
NOL	Noil
OVW	Overwrap
PAL	Pail
PCK	Packed - not otherwise specified
PCS	Pieces
PIR	Pims
PKG	Package
PLF	Platform
PLN	Pipeline
PLT	Pallet
POV	Private Vehicle
PRK	Pipe Rack
QTR	Quarter of Beef
RAL	Rail (Semiconductor)
RCK	Rack
REL	Reel
ROL	Roll
RVR	Reverse Reel
SAK	Sack
SBC	Liner Bag Dry
SCS	Suitcase
SHK	Shook
SHT	Sheet
SID	Side of Beef
SKD	Skid
SKE	Skid, elevating or lift truck
SLP	Slip Sheet
SLV	Sleeve
SPI	Spin Cylinders
SPL	Spool
SVN	SEAVAN - Sea Van
TBE	Tube
TBN	Tote Bin
TKR	Tank Car
TKT	Tank Truck
TLD	Intermodal Trailer/Container Load (Rail)
TNK	Tank
TRC	Tierce
TRI	Triwall Box
TRK	Trunk and Chest
TRU	Truck
TRY	Tray
TSS	Trunk, Salesmen Sample
TTC	Tote Can
TUB	Tub
UNP	Unpacked
UNT	Unit
VEH	Vehicles
VPK	Van Pack
WHE	On Own Wheel
WLC	Wheeled Carrier
WRP	Wrapped



***SEGMENT MEA–Measurements*****OPTIONAL**

Maximum Use: 3

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Measurement Reference ID Code	737 / ID	02/02	O	
2	Measurement Qualifier	738 / ID	01/03	O	
3	Measurement Value	739 / R	01/20	C	
4	Unit/Basis Measurement Code	355 / ID	02/02	C	
5	Range Minimum	740 / R	01/20	C	
6	Range Maximum	741 / R	01/20	C	
7	Measurement Sig Code	935 / ID	02/02	O	
8	Measurement Attribute Code	936 / ID	02/02	O	
9	Layer/Position Code	752 / ID	02/02	O	
10	Measurement Method	1373 / ID	02/04	C	

**SEGMENT L1–Rate and Charges****OPTIONAL**

Maximum Use: 10 (per loop)

Example: L1\*1\*4500\*PC

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Line Number	213/N0	01/03	O	Associated line number from L5 segment
2	Freight Rate	60 / R	01/09	C	Shipment rate per unit
3	Rate Qualifier	122 / ID	02/02	C	GT - per gross ton PA - per container PC - per car PH - per hundred weight PM - per mile PP - per piece PT - per net PV - per vehicle TR - per trailer
4	Charges	58 / N2	01/12	C	
5	Advances	191 / N2	01/09	C	
6	Prepaid Amount	117 / N2	01/09	C	
7	Rate Comb Point Code	120 / AN	03/09	O	
8	Special Charge Code	150 / ID	03/03	O	
9	Rate Class	121 / ID	01/03	O	
10	Entitlement Code	39 / ID	01/01	O	
11	Charge Method of Payment	16 / ID	01/01	O	
12	Special Change Description	276 / AN	02/25	O	
13	Tariff Applied	257 / ID	01/01	O	
14	Declared Value	74/ N2	02/12	C	
15	Value Qualifier	122 / ID	02/02	C	
16	Lading Code	372 / ID	01/01	O	
17	Billed Quantity	220 / R	01/11	C	
18	Billed Qualifier	221 / ID	02/02	C	
19	Percent	954 / R	01/10	O	
20	Currency Code	100 / ID	03/03	O	
21	Amount	610 / N2	01/15	O	

**SEGMENT PI–Price Authority Information****OPTIONAL**

Maximum Use: 30

Example: PI\*CT\*123456\*\*\*BNSF\*QT

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	CT - contract PR - price authority
2	Reference Number	127 / AN	01/30	M	
3	Primary Pub Authority	436 / ID	02/02	O	Type of reference OP - other publication TP - tariff publication
4	Regulatory Agency Code	930 / ID	03/05	O	Code relating to the governing agency in effect for the move.
5	Tariff Agency Code	168 / ID	01/04	O	BNSF. The SCAC of the railroad who issued the price authority.
6	Issuing Carrier ID	965 / AN	01/10	O	Identifying element used by the price authority issuer in conjunction with the authority number to help identify the primary price authority (makes the number unique within a carrier). Some examples may be QT12345 or BNQ12345. QT and BNQ is the unique prefix that distinguishes this price authority.
7	Contract Suffix	660 / AN	01/02	O	
8	Tariff Item Number	169 / AN	01/16	O	Number assigned in the tariff to specify a rate or group of rates that apply to one or more items in the shipment.
9	Tariff Supp ID	173 / AN	01/04	O	Identifier for the tariff supplement which contains the rate.
10	Tariff Section	172 / AN	01/02	O	Number used as an extension of the basic tariff number to identify the rates published within specific sections of the tariff.
11	Contract Suffix	660 / AN	01/02	O	
12	Date	373 / DT	08/08	O	
13	Date	373 / DT	08/08	O	
14	Alternation Preced Code	629 / ID	01/01	O	
15	Alternation Preced Code	629 / ID	01/01	O	

***SEGMENT X1–Export License*****OPTIONAL**

Maximum Use: 6 (per loop)

NOTE: *THIS SEGMENT IS NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	License Agency	83 / ID	01/01	O	
2	License Number	50 / AN	01/15	O	
3	Export License Status Code	51 / ID	01/01	O	
4	Expiration Date	373 / DT	08/08	O	
5	Export License Symbol Code	52 / DT	01/02	O	
6	Export License Control Code	48 / ID	01/01	O	
7	Country	26 / ID	02/03	O	
8	Schedule B Code	141 / ID	01/10	O	
9	International/Domestic Indicator Code	210 / ID	01/01	O	
10	Lading Quantity	80 / N0	01/07	O	
11	Lading Value	148 / R	02/09	O	
12	Export Filing Key Code	47 / ID	01/01	O	
13	Measure Code	355 / ID	02/02	O	
14	Unit Price	212 / R	01/17	O	
15	US Government License Type	1306 / AN	01/01	O	
16	ID Code	67 / AN	02/80	O	

***SEGMENT T1–Transit Inbound Origin*****OPTIONAL**

Maximum Use: 1 (64 Loops of T1, T2, T3, T6 &amp; T8)

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Sequence Number	554 / N0	01/06	M	
2	Waybill Number	186 / N0	01/06	O	
3	Waybill Date	373 / DT	06/06	O	
4	SCAC	140 / ID	02/04	O	
5	City Name	19 / AN	02/30	O	
6	State / Province	156 / ID	02/02	O	
7	SPLC	154 / ID	06/09	O	
8	Transit Registration Number	229 / AN	01/06	O	
9	Transit Level Code	461 / ID	01/03	O	

***SEGMENT T2–Transit Inbound Lading*****OPTIONAL**

Maximum Use: 30 (per loop)

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Assigned Number	554 / N0	01/06	M	
2	Lading Description	79 / AN	01/50	O	
3	Weight	81 / R	01/10	O	
4	Weight Qualifier	187 / ID	01/02	O	
5	Freight Weight	60 / R	01/09	C	
6	Value Qualifier	122 / ID	02/02	C	
7	Freight Rate	60 / R	01/09	C	
8	Value Qualifier	122 / ID	02/02	C	
9	City	19 / AN	02/30	O	
10	City	19 / AN	02/30	O	
11	Thru Surcharge %	462 / N2	02/04	O	
12	Paid in Surcharge %	463 / N2	02/04	O	

***SEGMENT T3–Transit Inbound Route*****OPTIONAL**

Maximum Use: 12 (per loop)

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Assigned Number	554 / N0	01/06	M	
2	SCAC	140 / ID	02/04	M	
3	Route Sequence Code	133 / ID	01/02	O	
4	City Station	19 / AN	02/30	O	
5	SPLC	154 / ID	06/09	O	
6	Equipment Initial	206 / AN	01/04	M	
7	Equipment Number	207 / AN	01/10	C	

***SEGMENT T6–Transit Inbound Rates*****OPTIONAL**

Maximum Use: 1 (per loop)

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Assigned Number	554 / N0	01/06	M	
2	Freight Rate	60 / R	01/09	C	
3	Value Qualifier	122 / ID	02/02	C	
4	City	19 / AN	02/30	O	
5	Freight Rate	60 / R	01/09	C	
6	Value Qualifier	122 / ID	02/02	C	
7	City	19 / AN	02/30	O	



***SEGMENT T8–Free Form Transit Data*****OPTIONAL**

Maximum Use: 99 (per loop)

NOTE: *THIS SEGMENT NOT USED BY BNSF.*

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Assigned Number	554 / N0	01/06	M	
2	Free Form	299 / AN	01/80	M	

**SEGMENT L3–Total Weight and Charges****OPTIONAL**

Maximum Use: 1

Example: L3\*\*\*\*\*1000\*\*1000

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	No longer used	---	---	-	
2	No longer used	---	---	-	
3	No longer used	---	---	-	
4	No longer used	---	---	-	
5	Charges	58 / N2	01/12	O	
6	Advances	191 / N2	01/09	O	
7	Prepaid Amount	117 / N2	01/09	O	
8	No longer used	---	---	-	
9	No longer used	---	---	-	
10	No longer used	---	---	-	
11	No longer used	---	---	-	
12	No longer used	---	---	-	
13	No longer used	---	---	-	
14	No longer used	---	---	-	
15	No longer used	---	---	-	

***SEGMENT LS–Loop Header*****OPTIONAL**

Maximum Use: 1

Example: LS\*800

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Loop Indicator	447 / AN	01/04	M	

**NOTE:**

This segment is outside the loop. It indicates that a loop follows.

**SEGMENT LH1–Hazardous ID Information****OPTIONAL**

Maximum Use: 1

Example: LH1\*BX\*10\*UN1830\*\*4930040\*LB\*25\*\*\*II

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Unit/ Basis Measurement Code	355 / ID	02/02	M	Packaging type. See next page. This is not a complete listing of data element 355 - just those supported by BNSF.
2	Lading Quantity	80/ N0	01/07	M	
3	UN/NA ID Code	277 / ID	06/06	O	
4	UN Hazardous Material Page Number	200/ AN	01/06	O	
5	Commodity Code	22 /AN	01/30	O	<b>BNSF uses 7 character maximum</b>
6	Unit/Basis Measurement Code	355 / ID	02/02	O	Packaging type. See next page. This is not a complete listing of data element 355 - just those supported by BNSF.
7	Quantity	380 / R	01/15	O	Weight of hazardous commodity
8	Compartment ID Code	595 / ID	01/01	O	Car compartment number from brake end. Transmit for compartmented cars only.
9	Residue Indicator	665 / ID	01/01	O	Use only in conjunction with E in the BX07.
10	Packing Group Code	254 / ID	01/03	O	I, II, III
11	Interim Haz Mat Registration Number	1375 / AN	01/05	O	

NOTE: Hazardous waste shipments - 48 series STCC code - are supported by 404 EDI bills of lading; however, must be followed up with a fax manifest of the hazardous waste material. Please discuss with your EDI Implementation Specialist during testing.

## BNSF 404 Implementation Guideline

BA	Bale
BAG	Bag
BAL	Bale
BBL	Barrel
BD	Bundle
BDL	Bundle
BC	Bucket
BE	Beam
BEM	Beam
BG	Bag
BIN	Bin
BLK	Bulk
BN	Bulk
BOX	Box
BR	Barrel
BS	Basket
BU	Bushel
BX	Box
B4	Barrel, imperial
CA	Case
CAN	Can
CAS	Case
CF	Cubic feet
CH	Container
CL	Cylinder
CLD	Carload (rail)
CM	Centimeter
CN	Can
CNT	Container
COL	Coil
CP	Crate
CR	Carload
CRT	Crate
CT	Carton
CTN	Carton
CX	Coil
CYL	Cylinder
C4	Carload (rail)
DR	Drum
DRM	Drum
DT	Dry ton
DZ	Dozen
FO	Fluid ounce
FSK	Flask
GA	Gallon
GL	Grams per liter
GN	Gross gallon

## BNSF 404 Implementation Guideline

GR	Gram
HPC	Hopper pneumatic discharge
JAR	Jar
JR	Jar
JU	Jug
KE	Keg
KEG	Keg
KG	Kilogram
LB	Pound
LSE	Loose
LT	Liter
ML	Milliliter
MM	Millimeter
MN	Metric net ton
MP	Metric ton
MR	Meter
NC	Car
NG	Net gallons
PA	Pail
PAL	Pail
PCK	Packed - not otherwise specified
PCS	Package
PH	Pack (pak)
PK	Package
PKG	Package
PL	Pallet/unit load
PLT	Pallet
PN	Pounds net
PT	Pint
QT	Quart
RA	Rack
RCK	Rack
RE	Reel
REL	Reel
RL	Roll
ROL	Roll
SAK	Sack
SJ	Sack
SKD	Skid
SO	Spool
SPL	Spool
SV	Skid
TB	Tube
TBE	Tube
TC	Truckload
TE	Tote
TH	Thousands

TK	Tank
TKR	Tank car
TLD	Intermodal trailer/container
TN	Net ton (2000 lb)
TNK	Tank
TO	Troy ounce
UN	Unit
UNT	Unit
VEH	Vehicle
WE	Wet ton
WHE	On own wheels
Z3	Cask
1E	Empty car
12	Packet
18	55 gallon drum
2W	Bin
20	20 foot container
21	40 foot container
26	Actual tons
48	Bulk car load

**SEGMENT LH2–Hazardous Classification****OPTIONAL**

Maximum Use: 4 (per loop)

Example: LH2\*8\*P\*\*\*\*RQ

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Hazardous Class	215 / ID	01/30	O	
2	Hazardous Class Qualifier	983 / ID	01/01	O	P - primary S - secondary
3	Hazardous Placard Notation	518 / ID	14/40	O	One hazardous placard required for each commodity
4	Hazardous Placard Endorsement	222 / ID	04/25	O	
5	Reportable Quantity Code	759 / ID	02/02	O	TEC - technical or group name RQ - if applicable
6	Unit/Basis Measurement Code	355 / ID	02/02	C	Packaging type. See list on page 92. This is not a complete listing of data element 355 - just those supported by BNSF.
7	Temperature	408 / R	01/04	C	Flash point temperature
8	Unit/Basis Measurement Code	355 / ID	02/02	C	Packaging type. See list on page 92. This is not a complete listing of data element 355 - just those supported by BNSF.
9	Temperature	408 / R	01/04	C	
10	Unit/Basis Measurement Code	355 / ID	02/02	C	Packaging type. See list on page 92. This is not a complete listing of data element 355 - just those supported by BNSF.
11	Temperature	408 / R	01/04	C	



**SEGMENT LH3–Proper Shipping Name****OPTIONAL**

Maximum Use: 10 (per loop)

Example: LH3\*SULFURIC ACID\*N

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Haz Mat Shipping Name	224 / AN	01/25	C	
2	Haz Mat Name Qualifier	984 / ID	01/01	C	D - domestic C - Canadian I - International N - HM 181
3	NOS Code	985 / ID	03/03	O	NOS if applicable
4	Y/N Condition Response Code	1073 / ID	01/01	O	

**SEGMENT LFH-Free Form Haz Mat Information****OPTIONAL**

Maximum Use: 20 (per loop)

Example: LFH\*HZC\*(METHYLALCOHOL)

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Hazardous Material Qualifier	808 / ID	03/03	M	ADI - additional descriptive information. Do not use ADI when the following codes are used: DWW - dangerous when wet D13 - DOT 113 do not bump or cut off car whil in motion HZC - hazardous substance constituents INH - inhalation hazard LQY - limited quantity MPI - marine pollutant PIH - poison inhalation hazard POI - poison RAM - radioactive material TEC - technical or chemical group name TNM - trade name
2	Hazardous Material Shipment Information	809 / AN	01/25	M	
3	Hazardous Materal Shipment Information	809 / AN	01/25	O	
4	Hazard Zone	1023 / ID	01/01	O	A, B, C or D
5	Unit/Basis Measurement Code	355 / ID	02/02	C	
6	Quantity	380 / R	01/15	C	
7	Quantity	380 / R	01/15	C	

**SEGMENT LEP–EPA Required Data****OPTIONAL**

Maximum Use: 3 (per loop)

Example: LEP\*1234\*USED OIL

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	EPA Waste Stream Number	806 / ID	04/06	O	
2	Waste Characteristic Code	807 / ID	12/16	O	
3	State or Province Code	156 / ID	02/02	C	
4	Reference Number	127 / AN	01/30	C	

NOTE: Hazardous waste shipments - 48 series STCC code - are supported by 404 EDI bills of lading; however, must be followed up with a fax manifest of the hazardous waste material. Please discuss with your EDI Implementation Specialist during testing.

***SEGMENT LH4–Canadian Dangerous Requirements  
(Shipments moving in Canada Only)***

**CONDITIONAL**

Maximum Use: 1 (per loop)

Example: LH4\*ERPNO1111\*111-222-3333\*I

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Emergency Response Plan Number	238 / AN	01/12	O	
2	Communication Number	364 / AN	01/80	O	Phone number
3	Packing Group Code	254 / ID	01/03	O	I, II, III
4	Subsidiary Classification	230 / ID	01/03	O	
5	Subsidiary Classification	230/ID	01/03	O	
6	Subsidiary Classification	230 / ID	01/03	O	
7	Subsidiary Risk Indicator	271 / ID	01/02	O	
8	Net Explosive Quantity	267 /N0	01/06	O	
9	Canadian Hazardous Notation	805 / AN	01/25	O	
10	Special Comm Indicator Code	986 / ID	01/01	O	S - positive indicator
11	Communication Number	364 / AN	01/80	O	
12	Unit/Basis Measurement Code	355 / ID	02/02	C	

NOTE: This segment becomes conditional based on if the shipment has a Canadian origin.

***SEGMENT LHT–Transborder Hazardous Requirements*****OPTIONAL**

Maximum Use: 3 (per loop)

Example: LHT\*CLASS 2.4\*CLASS 2.4 PLACARDS APPLIED

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Hazardous Classification	215 / ID	02/30	O	
2	Hazardous Placard Notation	218 / ID	14/40	O	
3	Hazardous Placard Endorsement	222 / ID	04/25	O	

**PURPOSE:**

To specify the placard information required by the second government agency when a shipment is to cross into another country.

**SEGMENT LHR–Haz Mat ID Reference Numbers****OPTIONAL**

Maximum Use: 5 (per loop)

Example: LHR\*IM\*IMO CLASS 3.1

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	M - intergovernmental maritime organization number ZZ - mutually defined (use for special approval number)
2	Reference Number	127 / AN	01/30	M	

**SEGMENT PER**–Admin Communication Contact (Haz Mat Shipments Only)**OPTIONAL**

Maximum Use: 5 (per loop)

Example: PER\*HM\*JOHN DOE\*TE\*111-222-3333

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Contact Function Code	366/ ID	02/02	M	HM - haz mat contact
2	Name	93/ AN	01/35	O	
3	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
4	Communication Number	364/AN	01/80	C	
5	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
6	Communication Number	364/AN	01/80	C	
7	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
8	Communication Number	364/AN	01/80	C	
9	Contact Inquiry Reference	443 / AN	01/20	O	

***SEGMENT LE–Loop Trailer*****OPTIONAL**

Maximum Use: 1

Example: LE\*800

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Loop Identifier	447 / AN	01/04	M	Hazardous loop end.



**SEGMENT PER**–Admin Communication Contact (Haz Mat Shipments Only)**OPTIONAL**

Maximum Use: 5

Example: PER\*HM\*JOHN DOE\*TE\*111-222-3333

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Contact Function Code	366/ ID	02/02	M	HM - haz mat contact
2	Name	93/ AN	01/35	O	
3	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
4	Communication Number	364/AN	01/80	C	
5	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
6	Communication Number	364/AN	01/80	C	
7	Communication Number Qualifier	365/ ID	02/02	C	TE - telephone number
8	Communication Number	364/AN	01/80	C	
9	Contact Inquiry Reference	443 / AN	01/20	O	

**SEGMENT LH2–Hazardous Classification****OPTIONAL**

Maximum Use: 6

Example: LH2\*NA\*\*NON-FLAMMABLE GAS

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Hazardous Class	215 / ID	01/30	M	
2	Hazardous Class Qualifier	983 / ID	01/01	O	
3	Hazardous Placard Notation	218 / ID	14/40	C	
4	Hazardous Placard Endorsement	222 / ID	04/25	O	
5	Reportable Quantity Code	759 / ID	02/02	O	
6	Unit of Measure	355 / ID	02/02	C	
7	Temperature	408 / R	01/04	C	
8	Unit/Basis Measurement Code	355 / ID	02/02	C	
9	Temperature	408 / R	01/04	C	
10	Unit/Basis Measurement Code	355 / ID	02/02	C	
11	Temperature	408 / R	01/04	C	

**SEGMENT LHR–Haz Mat ID Reference Numbers (Haz Mat Shipments Only)****OPTIONAL**

Maximum Use: 1

Example: LHR\*HE\*7616

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Reference Number Qualifier	128 / ID	02/03	M	HE - hazardous exemption
2	Reference Number	127 / AN	01/30	M	7616
3	Date	373 / DT	08/08	O	

**NOTE:**

This segment is used to identify that the information is being passed electronically to BNSF as covered by the hazardous material exemption, 7616.

**SEGMENT LH6–Hazardous Certification****OPTIONAL**

Maximum Use: 5

Example: LH6\*JOE R. SMITH\*1\*ON BEHALF OF SHIPPER\*AVERS CERTIFICATION  
 LH6\*\*\*SPECIFIED IN 49 CFR\* 172.204(A)

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Name	93 / AN	01/35	O	
2	Hazardous Certification Declaration	272 / ID	01/01	O	1- short form 2 - long form
3	Hazardous Certification Declaration	273 / AN	01/25	O	
4	Hazardous Certification Declaration	273 / AN	01/25	O	

NOTE: Certification is required when BNSF is the originating carrier of this shipment. In the case of intermodal shipments, BNSF is not the originating carrier. Certification should be furnished to the first provider of shipment movement to the railroad ramping facility. Thus, LH6 certification is **not required for intermodal shipments**.

**SEGMENT XH—Pro Forma B13 Information****OPTIONAL**

Maximum Use: 1

Example: XH\*USD\*N\*FCD\*1000

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Currency Code	100 / ID	03/03	M	USD - US Dollars CND - Canadian Dollars
2	Related Companies Indicator Code	645 / ID	01/01	O	N - default If used, then XH03 is required
3	Special Charge Code	150 / ID	03/03	O	FCB - freight charges to border FCD - freight charges to destination
4	Amount	610 / N2	01/15	O	
5	Block 20 Code	503 / ID	01/01	O	
6	Chemical Analysis %	504 / N2	02/09	O	
7	Unit Price	212 / R	01/17	O	

***SEGMENT X7—Customs Information*****OPTIONAL**

Maximum Use: 10

Example: X7\*FREE FORM CUSTOMS\*INFORMATION

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Free Form Comments	61/ AN	01/30	M	
2	Free Form Comments	61/ AN	01/30	O	

***SEGMENT SE—Transaction Set Trailer*****MANDATORY**

Maximum Use: 1

Example: SE\*018\*0001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number of Segments	96 / N0	01/10	M	This element should be the number of segments transmitted in the set. The ST segment is the first one counted and the SE segment is the last one counted.
2	Control Number	329 / AN	01/09	M	This number should match the control number on the ST segment.

***SEGMENT GE–Functional Group Trailer*****MANDATORY**

Maximum Use: 1

Example: GE\*1\*1001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number of Sets	97 / N2	01/06	M	This element should be the number of sets transmitted (number ST-SE pairs).
2	Control Number	28 / N2	01/09	M	This number must match the control number transmitted on the GS segment.



***SEGMENT IEA–Interchange Control Trailer*****MANDATORY**

Maximum Use: 20

Example: IEA\*1\*123456789

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number Included Functional Groups	IEA01 / N0	01/05	M	This element should be the number of sets transmitted (number GS-GE pairs).
2	Interchange Control Number	IEA02 / N0	09/09	M	

**997**

**FUNCTIONAL ACKNOWLEDGMENT**

## ***Introduction***

Transaction Set 997: Functional Acknowledgement  
Functional Group: FA

This transaction set contains the format and establishes the data contents of the Functional Acknowledgement Transaction Set (997) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to define the control structures for a set of acknowledgements to indicate the results of the syntactical analysis of the electronically encoded documents. The encoded documents are the transaction sets, which are grouped in functional groups, used in defining transactions for business data interchange. *This standard does not cover the semantic meaning of the information encoded in the transaction sets.*

Burlington Northern Santa Fe will accept the Rail Carrier Shipment Information published by DISA for ASC X12. The following guidelines are all-inclusive and identify unique requirements for use of the ASC X12 997 transaction set when transmitting data to Burlington Northern Santa Fe.

To obtain X12 standards and documentation, contact:

Data Interchange Standards Association, Inc.  
1800 Diagonal Road, Suite 355  
Alexandria, VA 22314-2840  
703-548-7005

***Basic Formatting Rules***

In reading and formatting 997 messages, some segments are not mandatory. For example, if all transactions are accepted without error, only the AK1 and AK9 segments are necessary. If, however, transactions are rejected or accepted with errors, detail regarding these messages should be formatted in the AK2, AK3, AK4, and AK5. This detailed is used to determine how/why the messages were rejected or accepted with error, thus the problems can be readily identified and corrected for future transmission.

**SEGMENT ISA–Interchange Control Header****MANDATORY**

Maximum Use: 1 per transaction set

Example:

ISA\*00\*.....\*00\*.....\*02\*BNSF.....\*02\*CUSTOMERID.....\*981231\*0034\*U\*00401\*123456789\*1\*P\*~

#	NAME	DATA ELEMENT # / TYPE	MIN/MAX	REQ	CONTENTS
1	Authorization Information Qualifier	I01 / ID	02/02	M	00
2	Authorization Information	I02 / AN	10/10	M	
3	Security Information Qualifier	I03 / AN	02/02	M	00
4	Security Information	I04 / AN	10/10	M	
5	Interchange ID Qualifier	I05 / ID	02/02	M	02
6	Interchange Sender ID	I06 / ID	15/15	M	BNSF
7	Interchange ID Qualifier	I07 / ID	02/02	M	02
8	Interchange Receiver ID	I08 / ID	15/15	M	Customer ID
9	Interchange Date	I09 / DT	06/06	M	YYMMDD
10	Interchange Time	I10 / TM	04/04	M	HHMM
11	Interchange Control Standard ID	I11 / ID	01/01	M	U - US EDI Community of ASC X12, TDCC, and UCS
12	Interchange Control Version Number	I12 / ID	05/05	M	00401 - X12 ver 4010 00306 - X12 ver 3060 00302 - X12 ver 3020 00204 - Version 2/4
13	Interchange Control Number	I13 / N0	09/09	M	
14	Acknowledgement Requested	I14 / ID	01/01	M	0 - No acknowledgement requested 1 - Interchange acknowledgement requested
15	Test Indicator	I15 / ID	01/01	M	P - production T - test
16	Subelement Separator	I16 / AN	01/01	M	BNSF uses ~ (tilde character)

**NOTE: Spaces must be used when maximum length requirement is not met by the contents of the data element. Spaces are shown above in the example by periods (.) . These should not be part of the ISA but used here to illustrate that spaces are required even if no data is supplied within the position This segment needs to be exactly 106 positions long - counting the ISA, all the delimiters, all the mandatory fields plus a Hex 15 immediately following ISA 16 to indicate carriage return/line feed IF COMMUNICATING VIA RAILINC, PLEASE SEE APPENDIX 1 AT END OF THIS DOCUMENT.**

**SEGMENT GS—Beginning Segment****MANDATORY**

Maximum Use: 1 per transaction set

Example: GS\*FA\*PASSWORD/ID\*BNSF\*19981231\*1300\*1001\*X\*004010

#	NAME	DATA ELEMENT # / TYPE	MIN/MAX	REQ	CONTENTS
1	Functional Group	479 / A	02/02	M	FA
2	Appl Send	142 / AN	02/12	M	Mailbox or customer ID agreed to by acceptance into BNSF computer system.
3	Appl Receiver	124 / A	02/12	M	Receiver railroad id BNSF
4	Interchange Date	29 / N	08/08	M	YYYYMMDD of transmission
5	Interchange Time	30 / N	04/04	M	HHMM of transmission
6	Control Number	28 / N	01/09	M	Sender's message control number
7	Agency Code	455 / N	01/02	M	X only for ASC X12
8	Version	480 / N	01/12	M	Senders transmission standard version. This manual represents version 004010.

***SEGMENT ST - Transaction Set Header*****MANDATORY**

Maximum Use: 1 per transaction set

Example: ST\*997\*0001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Functional Group	143 /ID	03/03	M	997
2	Control Number	329 /AN	01/09	M	Sender message control number. This number will be returned by receiver in response transaction set.

***SEGMENT AK1 - Functional Group Response Header*****MANDATORY**

Maximum Use: 1 per transaction set

Example: AK1\*SR\*1234

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Functional ID Code	479 / ID	02/02	M	
2	Group Control Number	28 / N0	01/09	M	Leading zeros will not be suppressed. This is the group control number from the original document, not this 997 message.



***SEGMENT AK2 - Transaction Set Response Header*****MANDATORY**

Maximum Use: 1 per transaction set

Example: AK2\*404\*1123400001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Transaction ID Code	143 / ID	03/03	M	This indicates the transaction set which is being acknowledged. The above example reflects a 997 message in response to a 404 bill of lading.
2	Transaction Control Number	329 / AN	04/09	M	This is the control number from original document that is being acknowledged.

***SEGMENT AK3 - Data Segment Note*****OPTIONAL**

Maximum Use: 1 per transaction set

Example: AK3\*080\*N7\*N7

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Segment ID Code	721 / ID	02/03	M	
2	Segment Position in Transaction Set	719 / N0	01/06	M	
3	Loop ID Code	447 / AN	01/04	O	
4	Segment Syn Error Code	720 / ID	01/03	O	

***SEGMENT AK4 - Data Element Note*****OPTIONAL**

Maximum Use: 99 per transaction set

Example: AK4\*11\*0040\*7\*XX

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Element Position in Segment	722 / N0	01/02	M	
2	Data Element Reference Number	725 / N0	01/04	O	
3	Data Element Error Code	723 / ID	01/03	M	
4	Copy of Bad Data Element	724 / AN	01/99	O	

**SEGMENT AK5 - Transaction Set Response Trailer****MANDATORY**

Maximum Use: 99 per transaction set

Example: AK5\*A

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Transaction Set Acknowledgement Code	717 / ID	01/01	M	A - accepted E - accepted but errors noted R - rejected
2	Transaction Set Syntax Error Code	718 / ID	01/03	O	1 - not supported 2 - trailer missing 3 - control number in header & trailer do not match 4 - number of included segments does not match actual count 5 - one or more segments in error 6 - missing or invalid transaction set identifier 7 - missing or invalid transaction set control number
3	Transaction Set Syntax Error Code	718 / ID	01/03	O	
4	Transaction Set Syntax Error Code	718 / AN	01/03	O	
5	Transaction Set Syntax Error Code	718 / AN	01/03	O	
6	Transaction Set Syntax Error Code	718 / AN	01/03	O	

**SEGMENT AK9 - Functional Group Response Trailer****MANDATORY**

Maximum Use: 99 per transaction set

Example: AK9\*A\*1\*1\*1

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Functional Group Acknowledgement Code	715 / ID	01/01	M	A - accepted E - accepted but errors noted R - rejected P - Partially rejected, at least one transaction set was rejected
2	Number of Transaction Sets Included	97 / N0	01/06	M	
3	Number of Received Transaction Sets	123 / N0	01/06	M	
4	Number of Accepted Transaction Sets	2 / N0	01/06	M	
5	Functional Group Error Code	716 / ID	01/03	O	
6	Functional Group Error Code	718 / ID	01/03	O	
7	Functional Group Error Code	718 / ID	01/03	O	
8	Functional Group Error Code	718 / ID	01/03	O	
9	Functional Group Error Code	718 / ID	01/03	O	

***SEGMENT SE - Transaction Set Trailer*****MANDATORY**

Maximum Use: 1 per transaction set

Example: SE\*1\*0001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number of Included Segments	96 / N0	01/10	M	
2	Control Number	329 /AN	04/09	M	

***SEGMENT GE - Ending Segment*****MANDATORY**

Maximum Use: 1 per transaction set

Example: GE\*1\*1001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number of Sets	97 / N2	01/06	M	This element should be the number of sets transmitted (number ST-SE pairs).
2	Control Number	28 / N2	01/09	M	This number must match the control number transmitted on the GS segment.

***SEGMENT IEA–Interchange Control Trailer*****MANDATORY**

Maximum Use: 20

Example: IEA\*1\*000001001

#	NAME	DATA ELEMENT # AND TYPE	MIN/MAX	REQ	CONTENTS
1	Number Included Functional Groups	IEA01 / N0	01/05	M	This element should be the number of sets transmitted (number GS-GE pairs).
2	Interchange Control Number	IEA02 / N0	09/09	M	



***APPENDIX 1 - Use of ISA headers with Railinc***

When using ISA headers with Railinc, the values within the data elements are different. Railinc's requirements for the ISA are as follows:

- The ISA01 is always 04 for Railinc, otherwise should be 00.
- The ISA02 should be pulled from list in documentation for Railinc, otherwise blank.
- The ISA03 should be 00 unless we are using passwords, then 01.
- The ISA04 should be the password is ISA03 is 01.
- The ISA06 is used at Railinc for all routing. This field should be the 4 character abbreviation of the third party (ex, "UPT ") if applicable, plus the Railinc defined 4 character abbreviation for the partner. It is possible that the partner abbreviation would not be required when using third parties (depends on the 3rd party). Non Railinc partners can define this value as they wish.

When translating messages from ISA to TRAIN II headers, this field will contain the transaction set identifier preceded by "SW". For a functional acknowledgment, the transaction set identifier will be preceded by "FA". (IE: SW417 or FA417).

## ***APPENDIX 2 - Intermodal Safe Container Act***

### Act Overview

On April 9, 1997, the amended Intermodal Safe Container Act went into effect. The Act, implemented by the Federal Highway Administration, impacts all intermodal shipments with *gross cargo weight* of more than 29,000 pounds (including packing materials, pallets, and dunnage). The purpose of the Act is to minimize overweight vehicles on the highway and provide recourse for a motor carrier if fined for an overloaded shipment.

### Safe Container Act Key Points

The Act requires certification of weight, certifying party, unit initial and number, commodity description, and date of certification (or transfer of data) on intermodal shipments with gross cargo weight over 29,000 pounds.

The party tendering the load can certify the load by providing a bill of lading or other shipping document, including the above elements. The Act states a copy of certification is not required to accompany the load. Weight certification information is expected to be transmitted by normal billing channels and passed to the appropriate carriers in the route of a shipment.

### Exempt from Certification

Intermodal movements exempt from the certification are shipments with one motor carrier performing all the highway transportation, or assuming responsibility for overweight fines if incurred by another motor carrier handling the highway transportation. To help clarify, those shipments with the same shipper or motor carrier handling both the origin and destination drayage will not require certification information.

### BNSF Intermodal Billing Requirements

BNSF's approach to the required Safe Container elements, in regards to rail billing, is stated below:

1) The *actual gross cargo weight*. Presently stated in the "*BNSF Intermodal Rules and Policies Guide*", gross cargo weight is required on billing for all shipments.

BNSF will deem weight on your billing to be the certified weight, unless otherwise stated. This is being done to eliminate the need for you to send additional information on your billing in conjunction with Safe Container Act requirements. If you need to correct the gross cargo weight, it can be updated until the unit is deramped or interchanged.

Many shippers (parties tendering billing) have expressed the desire to remain in control of the billing information and any associated changes, so *weight certifying information will not be accepted when a shipment is checked in at the gate.* Shippers do not want changes made to billing from documents deposited at the gate. Thus, only the party tendering the bill of lading will be allowed to update any of the billing information.

2) A *reasonable description* of the contents in a trailer or container. This information is also presently required on the bill of lading and nothing new is required. The Act states 'FAK' commodity descriptions will be restricted commencing the year 2001.

3) A *certifying party*. BNSF will automatically deem the *shipper as the certifying party*, which will help eliminate the need to send additional billing information. *If the certifying party is someone other than the shipper*, it must be relayed by normal billing methods (either EDI or Fax). See the "Billing Options" below for more details. In EDI, the certifying party would be formatted in the N1\*PV segment. BNSF will apply our own name in the N1\*CV if no N1\*PV certifying name is found on the bill.

*Based on the key Safe Container elements, no separate documentation is necessary. Unless otherwise specified on your billing, BNSF will consider the bill of lading gross cargo weight, unit initial and number, commodity description, and date as certified by the shipper. If providing the date and time of certification on your EDI billing, it would be formatted in the DTM\*458 segment. If BNSF converts certification information, we apply our own name in the N1\*CV and build a DTM\*ICF using the bill of lading date and time.*

#### Billing Options

The certifying information can be tendered electronically using the EDI versions 3050 and 3060. All other EDI versions today do not support the Safe Container Act required data elements.

However, if you do not presently use 3050 or 3060, some EDI options are: 1) Use your present EDI package. Weight and date will be deemed certified with the shipper being listed as the certifying party (formatted in an N1\*PV segment), unless this information is updated with a correction (either EDI or Fax). 2) Contact the BNSF EDI group to upgrade to a 3050 or 3060 EDI version. 3) Work with Kleinschmidt or your EDI translation vendor to convert your billing to the 3050 or 3060 version with the Safe Container data elements. 4) Use R-EDI, the industry PC billing package. R-EDI does accommodate Safe Container Act requirements.

**To answer your EDI questions, please contact your BNSF EDI representative at 1-800-809-2673, option 4.**

**As always, Safe Container Act data elements and any associated changes must be clearly identifiable on your fax billing documents. Fax billing should be sent to 1-800-786-2455**