



**VEEDER-ROOT  
CURRENT DATA STORAGE INTERFACE MANUAL**

**for**

**TLS-300 and TLS-350  
UST Monitoring Systems**

**and**

**TLS-350R  
Environmental & Inventory  
Management System**

**through Software Versions 15/115  
Manual Number 577013-600  
Revision C**



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## 1.0 Introduction

The TLS-300, TLS-350, and TLS-350R Current Data Storage Interface is used for computer systems to access the current UST Monitoring System data without the use of external electrical connections. This data is provided to the computer system from Veeder-Root software products such as TLS-PC.

It is the intent of this interface guide to specify the data format and field definitions of each of the data file types that are available for customer access.

All data is reported in comma delimited, fixed length fields as shown in the data record definition. All data is a numeric string, except for time and date fields. Setup files are provided which include label text fields.

All time-of-day events will be triggered by the TLS time-of-day and not be dependent upon the computer's time.

The TLS-PC initialization file contains various initialization parameters. This file is divided into different sections containing startup parameters.

The [Data Storage Enable] section contains data storage information that controls what data file type is written to disk. This section contains the definition of the file pathname of the data storage functions that are enabled. The sShortDate definition sets the date string picture of all date fields that are generated by data storage functions. The sTime definition sets the time separator character for all time fields generated by the data storage function.

When the data storage function is enabled, the corresponding value assigned in the [Data Storage Timing] section is used to define the timing interval of the data storage. When an inappropriate value has been assigned to the data storage timing value, the default value will be used. The parameters values are defined as follows:

- 0 - undefined, use default
- 1 - once every 30 seconds
- 2 - once every minute
- 3 - once every five minutes
- 4 - once every ten minutes
- 5 - once every thirty minutes
- 6 - after alarm status change
- 7 - after a delivery is complete
- 8 - once every hour
- 9 - once every even hour
- 10 - once every three hours, just after specified time
- 11 - once per day, just after specified time

**Sample initialization file:**

[System Area]

[Communications Params]

[Tank Colors]

[Data Storage Enable]

StoragePath=C:\TANKGAGE

sShortDate=MM/dd/yy

sTime=:

StartReportTime=00:00

INVENTORY=ON

ALARM\_HISTORY=ON

ALARM\_STATUS=ON

DELIVERY=ON

BIRPEROD=ON

BIRSHIFT=ON

SENSOR=ON

TANKTEST=ON

LINELEAK=ON

SETUP=ON

[Data Storage Timing]

INVENTORY\_TIMING=1

ALARM\_HISTORY\_TIMING=6

ALARM\_STATUS\_TIMING=6

DELIVERY\_TIMING=7

ADJ\_DELIVERY\_TIMING=7

BIRPEROD\_TIMING=9

BIRSHIFT\_TIMING=9

SENSOR\_TIMING=8

TANKTEST\_TIMING=11

LINELEAK\_TIMING=10

SETUP\_TIMING=11

---

## 2.0 Inventory Data

Filename:	INVENTORY.TXT			
	<u>fields</u>	<u>description</u>	<u>width</u>	<u>format/units of measure</u>
Column 1:	Tank number		2	integer value, range 1 - 16
2:	Date		8	mm/dd/yy
3:	Time		8	hh:mm:ss
4:	Volume		12	gallons or liters
5:	Ullage		12	gallons or liters
6:	TC Volume		12	gallons or liters
7:	Height		12	inches or mm
8:	Water Volume		12	gallons or liters
9:	Water Height		12	inches or mm
10:	Temperature		12	degrees Fahrenheit or Celsius

### Typical contents:

```
1,11/14/96,16:12:50, 4205.000000, 5795.000000, 4204.000000, 41.986668, 18.021954, 1.001111, 60.051437
2,11/14/96,16:12:50, 4205.000000, 5795.000000, 4204.000000, 41.986668, 18.021954, 1.001111, 60.051437
3,11/14/96,16:12:50, 4205.000000, 5795.000000, 4204.000000, 41.986668, 18.021954, 1.001111, 60.051437
4,11/14/96,16:12:50, 4205.000000, 5795.000000, 4204.000000, 41.986668, 18.021954, 1.001111, 60.051437
```

### Default Initialization parameter

[Data Storage Timing]

INVENTORY\_TIMING=1

### Notes:

1. This data format is based upon the i201 Serial Interface inquiry command.
2. When enabled, the default update setting is 30 seconds. This file may be updated by using any other data storage timing value (see the table in the Introduction section).





### 3.0 Alarm History Data

```

Filename:  ALARMHIS.TXT
  fields  description      width      format
Column 1:  Date                8           mm/dd/yy
           2:  Time                8           hh:mm:ss
           3:  Alarm Category      2           AA - see 111 command
           4:  Sensor Category     2           cc - see 111 command
           5:  Alarm Type          2           NN - see 111 command
           6:  Tank Number         2           integer value, range 1 - 16
           7:  Alarm State         2           1 - Alarm cleared
                                     2 - Alarm occurred
  
```

Typical contents for Tank 2, Tank Low Limit Alarm cleared  
 11/14/96,08:55:32, 2, 0, 5, 2 , 1

Default Initialization parameter  
 [Data Storage Timing]  
 ALARM\_HISTORY\_TIMING=6

- Notes:
1. This data format is based upon the i111 and i112 Serial Interface inquiry command and will contain the alarm histories of 50 alarms. The priority and non-priority alarms appear in the same file sorted by date and time.
  2. When enabled, this file is updated whenever the alarm status changes.

---

#### 4.0 Alarm Status Data

Filename: ALRMSTAT.TXT

<u>fields</u>	<u>description</u>	<u>width</u>	<u>format</u>
Column 1:	Date	8	mm/dd/yy
2:	Time	8	hh:mm:ss
3:	Alarm Category	2	A - see 111 command
4:	Sensor Category	2	cc - see 111 command
5:	Alarm Type	2	NN - see 111 command
6:	Tank Number	2	integer value, range 1 - 16
7:	Alarm State	2	0 - No Alarm condition 2 - Alarm occurred

Typical contents for System Normal current condition

11/14/96,10:55:32, 0, 0, 0, 0, 0

Typical contents for Tank 2, Tank Low Limit Alarm

11/14/96,08:55:32, 2, 0, 5, 2, 2

Default Initialization parameter

[Data Storage Timing]

ALARM\_STATUS\_TIMING=6

- Notes:
1. This data format is based upon the i101 Serial Interface inquiry command and will contain the active alarms. The Sensor Category is set to 0 for all alarms since this field does not apply to the i101 command. The Alarm State field is set to 2 when the alarm is either active or has cleared, but not acknowledged at the console.
  2. When enabled, this file is updated whenever the alarm status changes. This file may be updated by using any other data storage timing value (see the table in the Introduction section).



### 5.0 Delivery Data

```

Filename:  DELIVERY.TXT
  fields  description           width  format/units of measure
Column 1:  Tank number           2        integer value, range 1 - 16
           2:  Starting Date      8        mm/dd/yy
           3:  Starting Time      8        hh:mm:ss
           4:  Ending Date        8        mm/dd/yy
           5:  Ending Time        8        hh:mm:ss
           6:  Starting Volume    12       gallons or liters
           7:  Starting TC Volume 12       gallons or liters
           8:  Starting Water     12       inches or mm
           9:  Starting Temperature 12       degrees Fahrenheit or Celsius
          10:  Ending Volume      12       gallons or liters
          11:  Ending TC Volume   12       gallons or liters
          12:  Ending Water       12       inches or mm
          13:  Ending Temperature 12       degrees Fahrenheit or Celsius
          14:  Starting Height    12       inches or mm
          15:  Ending Height      12       inches or mm

```

#### Typical contents:

```

1,07/19/94,12:03:00,07/19/94,12:25:00, 2619.000000, 2638.000000, 0.000000, 49.200001,
7487.000000, 7545.000000, 0.000000, 48.700001, 0.000000, 0.000000

1,07/15/94,17:15:00,07/15/94,17:34:00, 3508.000000, 3536.000000, 0.000000, 48.299999,
7751.000000, 7808.000000, 0.000000, 49.340000, 0.000000, 0.000000

```

Default Initialization parameter  
 [Data Storage Timing]  
 DELIVERY\_TIMING=7

- Note:
1. This data format is based upon the i202 Serial Interface inquiry command.
  2. When enabled, this file is updated after a delivery has been completed. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).
  3. Example shown on two lines for each record. Actual data record remains only on a single line.
  4. When the Starting Height and Ending Height is not available, a zero value will be provided.



---

## 6.0 Adjusted Delivery Data (Console with BIR only)

Filename:	ADJDELIV.TXT			
	<u>fields</u>	<u>description</u>	<u>width</u>	<u>format/units of measure</u>
Column 1:	Tank number		2	integer value, range 1 - 16
2:	Starting Date		8	mm/dd/yy
3:	Starting Time		8	hh:mm:ss
4:	Ending Date		8	mm/dd/yy
5:	Ending Time		8	hh:mm:ss
6:	Starting Volume		12	gallons or liters
7:	Ending Volume		12	gallons or liters
8:	Adjusted Delivery		12	gallons or liters
9:	Adjusted TC Volume		12	gallons or liters

Typical contents:

```
1,07/19/94,12:03:00,07/19/94,12:25:00, 2619.000000, 2638.000000, 49.200001, 48.700001
1,07/15/94,17:15:00,07/15/94,17:34:00, 3508.000000, 3536.000000, 48.299999, 49.340000
```

Default Initialization parameter

[Data Storage Timing]

ADJ\_DELIVERY\_TIMING=7

Note:

1. This data format is based upon the i20B Serial Interface inquiry command.
2. This data is only available for consoles with BIR
3. When enabled, this file is updated after a delivery has been completed. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).


**7.0 Business Inventory Reconciliation Data (Consoles with BIR only)**

```

Filename:  BIRPEROD.TXT, BIRSHIFT.TXT
  fields  description          width  format/units of measure
Column 1:  Product Number        2        integer value
           2:  Number of tanks    2        integer value, range 1 - 16
           3:  Tank number        2        integer value, range 1 - 16
           4:  Opening Date       8        mm/dd/yy
           5:  Opening Time       8        hh:mm:ss
           6:  Closing Date       8        mm/dd/yy
           7:  Closing Time       8        hh:mm:ss
           8:  Opening Volume     12       gallons or liters
           9:  Deliveries         12       gallons or liters
          10:  Metered Sales       12       gallons or liters
          11:  Manual Adjust       12       gallons or liters
          12:  Calculated Inventory 12       gallons or liters
          13:  Physical Inventory  12       gallons or liters (at close)
          14:  Water Height        12       inches or mm
          15:  Variance           12       gallons or liters

```

Typical contents:

```

0, 1, 1,11/01/93,02:00:00,11/02/93,02:00:00, 9323.000000,    0.000000, 1220.000000,
0.000000, 8103.000000, 8101.000000,    4.490000,    -2.000000

```

Default Initialization parameter

[Data Storage Timing]

BIRPEROD\_TIMING=9

BIRSHIFT\_TIMING=9

Note:

1. This data format is based upon the iC03 and iC06 Serial Interface inquiry command.
2. When enabled, these files are updated once every even hour for consoles that are equipped with the BIR. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).
3. The BIR Shift data file contains the (completed) previous shift information.
4. This file will contain the last completed shift or period data only.

---

## 8.0 Tank Leak Test Compliance Data

Filename: TANKTEST.TXT

<u>fields</u>	<u>description</u>	<u>width</u>	<u>format</u>
Column 1:	Tank Number	2	integer value, range 1 - 16
2:	Date	8	mm/dd/yy
3:	Time	8	hh:mm:ss
4:	Leak Report Type	2	For In Tank Leak Test: 0 = Most recent gross test passed 1 = Most recent annual (.1) test passed 2 = Most recent periodic (.2) test passed 3 = Fullest monthly periodic test passed 4 = Fullest monthly annual test passed 5 = Fullest last reported periodic test passed 6 = Fullest last reported annual test passed nn - (1 - 12) for first monthly tests passed
5:	Leak History number	2	nn - (1 - 12) for first monthly tests passed
6:	Duration	12	Duration of test in hours
7:	Volume	12	Volume of test in gallons or liters
8:	Percent	12	Percent volume of full volume
9:	Reserved	12	Reserved value

Typical contents:

```
1,11/14/96,10:55:32, 0, 2, 0.000000, 2123.899902, 21.238998, 0.000000
1,09/03/93,23:16:00, 2, 0, 6.000000, 4629.899902, 46.299000, 0.000000
```

Default Initialization parameter  
[Data Storage Timing]  
TANKTEST\_TIMING=11

Note:

1. This data format is based upon the i207 Serial Interface inquiry commands.
2. When enabled, this file is updated once a day after start time parameter StartReportTime or midnight. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).



### 9.0 Sensor Test Compliance Data

```

Filename:  SENSOR.TXT
  fields  description      width    format
Column 1:  Sensor ID          2         1 - Liquid Sensor      (301)
                                         2 - Vapor Sensor       (306)
                                         3 - Groundwater Sensor (311)
                                         4 - Type A (2 wire)    (341)
                                         5 - Type B (2 wire)    (346)
                                         6 - Universal Sensor   (34B)
                                         (see Sensor Setup file)
2:  Sensor Number            2         integer value, range 1 - 64
3:  Date                      8         mm/dd/yy
4:  Time                      8         hh:mm:ss
5:  Sensor Status            4         0000 = Sensor Normal
                                         0001 = Sensor Setup Warning
                                         0002 = Sensor Fuel Alarm
                                         0003 = Sensor Open Alarm
                                         0004 = Sensor Short Alarm
                                         0005 = Sensor Water Alarm
                                         0006 = Sensor Dry Alarm
                                         0007 = Sensor High Liquid Alarm
                                         0008 = Sensor Low Liquid Alarm
                                         0009 = Sensor Liquid Warning

```

Typical contents for Liquid Sensor 1 Normal, Groundwater Sensor 4 Normal

```

1, 1,11/14/96,10:55:32,0000
3, 4,12/19/96,11:12:00,0000

```

Default Initialization parameter

[Data Storage Timing]

SENSOR\_TIMING=8

- Note:
1. This data format is based upon the i301, i306, i311, i341, i346 and i34B Serial Interface inquiry commands.
  2. When enabled, this file is updated hourly. This file may be updated by using any other data storage timing value of 2 or larger (see the table in the Introduction section).

---

## 10.0 Line Leak Test Compliance Data

Filename: LINELEAK.TXT

<u>fields</u>	<u>description</u>	<u>width</u>	<u>format</u>
Column 1:	Line Number	2	integer value
2:	Pass Test Date	8	mm/dd/yy
3:	Pass Test Time	8	hh:mm:ss
4:	Sensor Type	2	1 = Volumetric Line Leak 2 = PLLD Line Leak 3 = WPLLD Line Leak (see Line Leak Setup file)
5:	Line Leak Test Type	2	0 = 0.2 gal/hr Periodic 1 = 0.1 gal/hr Annual

Typical contents:

```
1,04/14/94,09:31:00, 1, 0, 1
1,10/04/94,02:46:00, 2, 2, 1
1,10/04/94,03:18:00, 2, 1, 1
1,10/04/94,03:18:00, 3, 0, 1
```

Default Initialization parameter  
[Data Storage Timing]  
LINELEAK\_TIMING=10

- Note:
1. This data format is based upon part of the i351, and all of the i385 and i388 Serial Interface inquiry commands.
  2. When enabled, this file is updated every three hours, beginning just after the specified start time parameter StartReportTime or midnight. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).
  3. This file will only contain the last passed annual and last passed periodic test data.



## 11.0 Tank Setup File

Each tank has a name or location label assigned to it in the console. A relational database file is generated and updated for user database applications which may be required to use these labels instead of numeric identifiers. Other tank setup parameters are provided in this data file

Filename:	TANKSET.TXT		
<u>fields</u>	<u>description</u>	<u>width</u>	<u>format</u>
Column 1:	Tank Number	2	identifies which tank
2:	Label	20	text name for label
3:	Tank Capacity	12	gallons or liters
4:	Tank Diameter	12	gallons or liters
5:	Max Product	12	gallons or liters
6:	High Product	12	gallons or liters
7:	Overfill Limit	12	gallons or liters
8:	Delivery Limit	12	gallons or liters
9:	Low Product	12	gallons or liters
10:	Product Code	1	ASCII character
11 - 26:	Tanks Manifolder	1	binary digit 1 or 0 for each tank Tank 16 through Tank 1 in descending order

Typical contents:

```
1,Regular Unleaded      ,10000.000000,   96.000000,  9700.000000,  9500.000000,  9000.000000,  1000.000000,
 1500.000000, 1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,1
2,Unleaded Plus        ,10000.000000,   96.000000,  9700.000000,  9500.000000,  9000.000000,  1000.000000,
 1500.000000, 2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0
3,Unleaded Super       ,10000.000000,   96.000000,  9700.000000,  9500.000000,  9000.000000,  1000.000000,
 1500.000000, 3,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0
```

Default Initialization parameter

```
[Data Storage Timing]
SETUP_TIMING=11
```

- Note:
1. Example shown on two lines for each record. Actual data record remains only on a single line.
  2. When enabled, this file is updated once per day after the start time parameter StartReportTime or midnight. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).

---

## 12.0 Sensor Setup File

Each sensor has a name or location label assigned to it in the console. A relational database file is generated and updated for user database applications which may be required to use these labels instead of numeric identifiers.

Filename:	SENSRSET.TXT			
	<u>fields</u>	<u>description</u>	<u>width</u>	<u>format</u>
Column 1:	Sensor ID		2	identifies sensor type (see below)
2:	Label		20	text name for label
3:	Sensor Number		2	identifies which sensor

Sensor ID	
1	Liquid Sensor (702)
2	Vapor Sensor (707)
3	Groundwater Sensor (712)
4	Type A (2 wire) Sensor (742)
5	Type B (3 wire) Sensor (747)
6	Universal Sensor (74C)

Typical contents:

3,	Groundwater #1	,	1
4,	Annular #1	,	1
5,	Sump Sensor #1	,	1

Default Initialization parameter

```
[Data Storage Timing]
SETUP_TIMING=11
```

Note: 1. When enabled, this file is updated once per day after the start time parameter StartReportTime or midnight. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).



### 13.0 Line Leak Setup File

Each line leak has a name or location label assigned to it in the console. A relational database file is generated and updated for user database applications which may be required to use these labels instead of numeric identifiers.

```

Filename:  LINESET.TXT
  fields  description      width    format
Column 1:  Line Leak ID      2         identifies Line Leak sensor type (see below)
          2:  Label          20        text name for label
          3:  Sensor Number  2         identifies which line
          4:  Tank assigned   2         tank number assigned to line
          5:  Shutdown rate  2         shutdown rate
                                     1 = 3.0 GPH
                                     2 = 0.2 GPH
                                     3 = 0.1 GPH

```

#### Line Leak ID

```

1 Volumetric Line Leak Detector (760, 752, 757)
2 PLLD Line Leak Detector (782, 785, 784)
3 WPLLD Line Leak Detector (7A2, 7A5, 7A4)

```

#### Typical contents:

```

          2, PLLD Label 1          , 1, 1, 1

```

#### Default Initialization parameter

```

[Data Storage Timing]
SETUP_TIMING=11

```

Note: 1. When enabled, this file is updated once per day after the start time parameter StartReportTime or midnight. This file may be updated by using any other data storage timing value of 8 or larger (see the table in the Introduction section).



---

## 14.0 Fixed Relationship Files

Fixed Relationship Files help to define the label for various numeric identifiers. Included below is a listing of each of these data files.

### 14.1 Alarm Relationship Files

For the Alarm History and Alarm Status data files, the following files can be used:

#### Alarm/Warning Category, field 3

Filename: ALMCA.TXT  
0,All Functions Normal  
1,System Alarm  
2,Tank Alarm  
3,Liquid Sensor Alarm  
4,Vapor Sensor Alarm  
5,Input Alarm  
6,Volumetric Line Leak Alarm  
7,Groundwater Sensor Alarm  
8,Type A Sensor Alarm  
12,Type B Sensor Alarm  
13,Universal Sensor Alarm  
14,Auto-Dial Fax Alarm  
18,Mechanical Dispenser Interface Alarm  
19,Electronic Dispenser Interface Alarm  
20,Product Alarm  
21,Pressure Line Leak Alarm  
26,Wireless PLLD Alarm

#### Sensor Category, field 4

Filename: SENSCAT.TXT  
0,Other  
1,Annular  
2,Dispenser Pan  
3,Monitoring Well  
4,STP Sump  
5,Piping Sump

**Alarm Type Number, field 5**

Filename: ALMTYPE.TXT

The alarm category number is the first field in the record, the alarm type number is the second field in this record.(The subsection heading indicates the alarm category is not included in the file.)

**System Alarm Category**

1, 1,Printer out of Paper  
1, 2,Printer Error  
1, 3,EEPROM Configuration Error  
1, 4,Battery Off  
1, 5,Too Many Tanks  
1, 6,System Security Warning  
1, 7,ROM Revision Warning  
1, 8,Remote Display Communications Error  
1, 9,Auto-dial Error  
1,10,Protective Key Error  
1,11,Tank Test Shutdown Warning  
1,12,Protective Cover Alarm  
1,13,BIR Shift Close Pending  
1,14,BIR Daily Close Pending  
1,15,PC/H8 Revision Warning  
1,16,System Self Test Error  
1,17,System Clock Incorrect Warning  
1,18,System Device Poll Timeout

**Tank Alarm Category**

2, 1,Tank Setup Data Warning  
2, 2,Tank Leak Alarm  
2, 3,Tank High Water Alarm  
2, 4,Tank Overfill Alarm  
2, 5,Tank Low Limit Alarm  
2, 6,Tank Theft Alarm  
2, 7,Tank High Limit Alarm  
2, 8,Tank Invalid Height Alarm  
2, 9,Tank Probe Out Alarm  
2,10,Tank High Water Warning  
2,11,Tank Delivery Required Warning  
2,12,Tank Maximum Level Alarm  
2,13,Tank Gross Leak Test Alarm  
2,14,Tank Periodic Leak Test Alarm  
2,15,Tank Annual Leak Test Alarm  
2,16,Tank Periodic Test Warning

---

2,17,Tank Annual Test Warning  
2,18,Tank Periodic Test Alarm  
2,19,Tank Annual Test Alarm  
2,20,Tank Leak Test Active  
2,21,Tank No CSLD Idle Time Warning  
2,22,Tank Siphon Break Active  
2,23,Tank CSLD Rate Increase Warning  
2,24,Tank AccuChart Calibration Warning  
2,25,Tank HRM Reconciliation Warning  
2,26,Tank HRM Reconciliation Alarm  
2,27,Tank Cold Temperature Warning

**Sensor Alarm Category 3, 4, 7, 8, 12 or 13**

(category 3 is shown only, but this data is repeated for each)

3, 2,Sensor Setup Data Warning  
3, 3,Sensor Fuel Alarm  
3, 4,Sensor Open Alarm  
3, 5,Sensor Short Alarm  
3, 6,Sensor Water Alarm  
3, 7,Sensor Dry Alarm  
3, 8,Sensor High Liquid Alarm  
3, 9,Sensor Low Liquid Alarm  
3,10,Sensor Liquid Warning

**Input Alarm Category**

5, 1,Input Setup Data Warning  
5, 2,Input Normal  
5, 3,Input Alarm

**VLLD Alarm Category**

6, 1,VLLD Setup Data Warning  
6, 2,VLLD Self Test Alarm  
6, 3,VLLD Shutdown Alarm  
6, 4,VLLD Leak Alarm  
6, 5,VLLD Selftest Warning  
6, 6,VLLD Pump On Warning  
6, 7,VLLD Gross Line Test Alarm  
6, 8,VLLD Gross Selftest Alarm  
6, 9,VLLD Gross Pump Test Alarm  
6,10,VLLD Gross Pump Selftest Alarm  
6,11,VLLD Periodic Test Warning  
6,12,VLLD Annual Test Warning





6,13,VLLD Periodic Test Alarm  
6,14,VLLD Annual Test Alarm  
6,15,VLLD Periodic Line Test Alarm  
6,16,VLLD Periodic Selftest Alarm  
6,17,VLLD Periodic Pump Test Alarm  
6,18,VLLD Periodic Pump Selftest Alarm  
6,19,VLLD Annual Line Test Alarm  
6,20,VLLD Annual Selftest Alarm  
6,21,VLLD Annual Pump Test Alarm  
6,22,VLLD Annual Pump Selftest Alarm  
6,23,VLLD Pressure Warning  
6,24,VLLD Pressure Alarm  
6,25,VLLD Gross Fault Alarm  
6,26,VLLD Periodic Fault Alarm  
6,27,VLLD Annual Fault Alarm  
6,28,VLLD Fuel Out Alarm

**Auto-Dial Fax Alarm Category**

14, 2,Auto-dial Failed Alarm

**Mechanical Dispenser Interface Alarm and Electronic Dispenser Interface Alarm Categories**

(only category 18 is shown)

18, 2,DIM Disabled Alarm

18, 3,DIM Communication Failure Alarm

**Product Alarm Category**

20, 2,BIR Threshold Alarm

20, 3,BIR Close Shift Warning

20, 4,BIR Close Daily Warning

**Pressure Line Leak Alarm Category**

21, 1,PLLD Setup Data Warning

21, 2,PLLD Gross Test Fail Alarm

21, 3,PLLD Annual Test Fail Alarm

21, 4,PLLD Periodic Test Warning

21, 5,PLLD Periodic Test Alarm

21, 6,PLLD Sensor Open Alarm

21, 7,PLLD High Pressure Alarm

21, 8,PLLD Shutdown Alarm

21, 9,PLLD High Pressure Warning

21,10,PLLD Pump On Warning

21,11,PLLD Periodic Line Leak

21,12,PLLD Annual Warning

21,13,PLLD Annual Alarm

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**Wireless PLLD Alarm Category**

26, 1,WPLLD Setup Data Warning  
26, 2,WPLLD Gross Test Fail Alarm  
26, 3,WPLLD Annual Test Fail Alarm  
26, 4,WPLLD Periodic Test Warning  
26, 5,WPLLD Periodic Test Alarm  
26, 6,WPLLD Sensor Open Alarm  
26, 7,WPLLD Communications Alarm  
26, 8,WPLLD Shutdown Alarm  
26, 9,WPLLD Pump On Warning  
26,10,WPLLD Periodic Line Leak  
26,11,WPLLD Annual Warning  
26,12,WPLLD Annual Alarm

**14.2 Sensor Compliance Relationship Files**

For the Sensor Compliance data files, the following files can be used.

**Sensor Status Value, field 3**

Filename: SNSRSTAT.TXT

0000,Sensor Normal  
0001,Sensor Setup Data Warning  
0002,Sensor Fuel Alarm  
0003,Sensor Open Alarm  
0004,Sensor Short Alarm  
0005,Sensor Water Alarm  
0006,Sensor Dry Alarm  
0007,Sensor High Liquid Alarm  
0008,Sensor Low Liquid Alarm  
0009,Sensor Liquid Warning