

**Program Executive Office (PEO)  
Enterprise Information Systems (EIS)**



**INTERFACE AGREEMENT**

**Transportation Coordinators' Automated Information  
for Movement System II (TC-AIMS II)**

**and**

**PowerTrack, U. S. Bank**

Prepared by:

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30 Mar 03

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U.S. Bank Corporate Payment Systems

Signed

24 Mar 03

### **1.1.1.1 Power Track Interface**

#### 1.1.1.1.1 Purpose of Interface

The Power Track interface provides a one-way data exchange between TC-AIMS II and Power Track to support automated Bill of Lading processing. The Interface eliminates the need for most of the manual data entry by the Transportation Officer (TO) into GFM when TC-AIMS II can electronically provide the Bill of Lading data. This process supports only Rail movements.

The accompanying Power Track Interface agreement applies to the Armed Services' functional proponents, software developers, operators, users, and other agencies involved with the transfer of data between TC-AIMS II and Power Track. The IA encompasses requirements pertaining to data, physical and logical interfaces, communications, service levels, and security.

#### 1.1.1.1.2 Power Track Description

Power Track is an online freight payment and transaction tracking system. Power Track provides instant access to shipment data for both carriers and shippers and guarantees fast, accurate payments.

#### 1.1.1.1.3 Stimulus/Response Sequence

The TC-AIMS II user with TO permissions will follow the usual Bill of Lading (BL) TC-AIMS II process. A TC-AIMS II user will create a shipment and prepare a BL for the rail move. When a TC-AIMS II user with TO permissions prints a BL, TC-AIMS II checks for Power Track parameters and, if they are set for the user, prompts with "Send to PowerTrack?" If the user clicks on "Yes", then TC-AIMS II populates the BL number with the next sequential number, and performs the export.

Once an export has been created for a BL, the system will no longer allow for editing the BL and no further prompts for Power Track will be displayed. The Bill of Lading screen only exists in TC-AIMS II Movement Execution.

The Bill of Lading number will be the responsibility of the TO. TC-AIMS II will assign the next sequential number each time a Bill of Lading is printed by a TO. The number format is "N-N, NNN, NNN", Example: "1-2,345,678". Once used, the "next" BL number will be increment so that the next sequential value will be used.

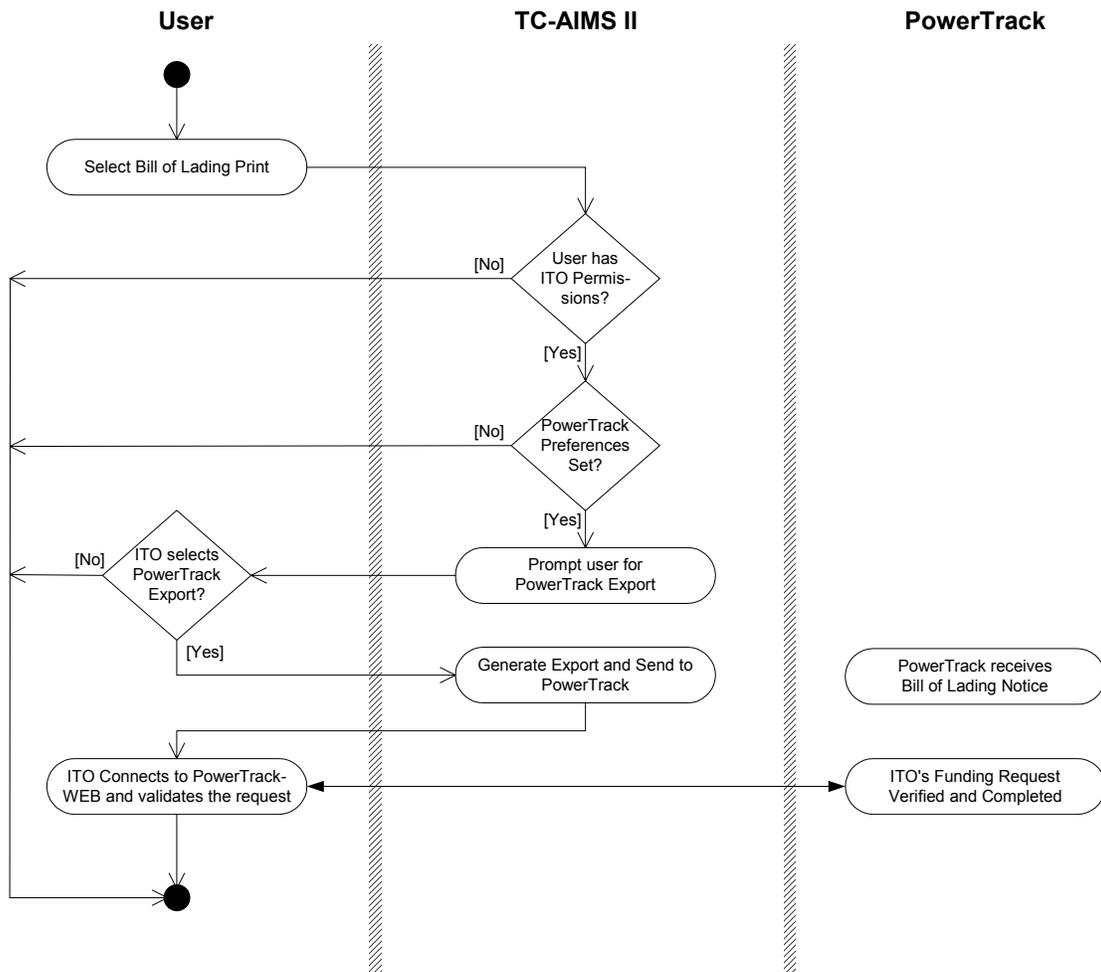
The TC-AIMS II ITO user can also manually create the PowerTrack export via the Interface Wizard. The Interface Wizard only allows an ITO user to select PowerTrack from the Movement Execution Interface selection screen. When selected and <Next> is pressed, TC-AIMS II displays to the BL selection screen where the user selects the BL for the export.

Data transferred from TC-AIMS II to PowerTrack shall be:

- 1 File Summary record consisting of interface control data
- 1 Batch record consisting of interface control data
- 1 Header record providing financial data
- 1 Origin record

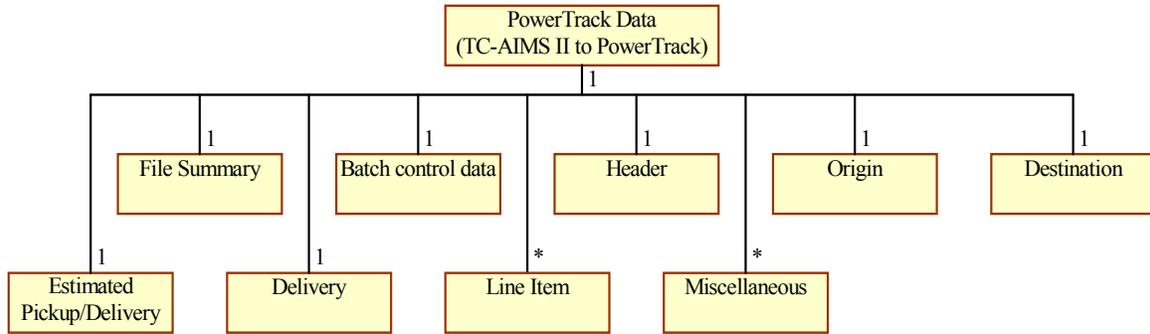
- 1 Destination record
- 1 Estimates Pickup/Delivery record
- 1 Delivery record, which contains information from the carrier. This will always be empty when coming from TC-AIMS II
- A Line Item record for each piece of cargo that describes the item and provides the related accounting data
- The Miscellaneous records will not be sent
- 1 End of Message record signifying the end of the data.

**TC-AIMS II PowerTrack Interface Process When Printing the Bill of Lading**



**Figure 1 Bill of Lading Trigger to PowerTrack Export**

Figure 1 illustrates the TC-AIMS II/ PowerTrack Interface processes when automatically initiated by the system when an ITO prints a Bill of Lading. *Not shown* is the manual export process available from the Interface Wizard. When invoked from the interface wizard, the system will take an ITO user to the Bill of Lading selection screen.



**Figure 2 – TC-AIMS II PowerTrack Interface data classes sent to PowerTrack**

Figure 2 provides a UML class diagram of the TC-AIMS II data sent to PowerTrack.

#### 1.1.1.1.4 Associated Functional Requirements

**Table 1 - TC-AIMS II and PowerTrack Interface Functional Requirements**

SOURCE REQ ID	REQ NO	REQ TITLE	REQ TEXT
JRO_R	JRO_R-369-1.2.1	Enter CBL Control Number	The system shall allow the user to enter an authorized CBL document Control Number.
JRO_R	JRO_R-369-1.2.2	Enter Fund Site	The system shall allow the user to enter an authorized fund site for billing.

#### 1.1.1.2 Priority

The default priority for the PowerTrack-TC-AIMS II interface is routine. Default is the priority for transmissions when not otherwise specified.

#### 1.1.1.3 Type

The TC-AIMS II-PowerTrack interface utilizes American Standard Code for Information Interchange (ASCII) fixed field format text embedded into an SMTP Email. The pipe ( “|” ) character is the field delimiter and the <Carriage Return> character is the record separator. The export is sent if a TO user prints the Bill of Lading within TC-AIMS II Movement Execution and the export has not already been sent once. The TO user will be provided the opportunity to stop the creation of the export.

#### 1.1.1.4 Design

##### 1.1.1.4.1 Code Modules

The manual PowerTrack export process is invoked via the Wizards - Interfaces - Import/Export - Movement Planning menu options. The following modules perform the PowerTrack interface processing:

<b>Import function</b>	<b>Module/Stored Procedure Name</b>
	TBD
	TBD
	TBD

#### 1.1.1.4.2 Interface Transactions

TABLE 2 Shows the external interface transaction definition information for the TC-AIMS II to PowerTrack interface. The table has five columns and includes:

- The unique interface object identifier for the transaction;
- The direction of the transaction data flow (from the view of TC-AIMS II);
- One or more unique identifiers representing the unique record format in the data stream;
- The system OPR for this interface; and
- The reference to the specifications document used to implement this interface.

There is one transaction implemented for this interface.

TABLE 3 contains more detailed information about the previously defined transaction. The table's seven columns include:

- The interface relative to the transaction;
- The transaction direction relative to TC-AIMS II;
- The interfaces unique transaction identifier;
- The name of the transaction;
- The purpose of the interface;
- The kind of file, the file naming convention, the record order and the record frequency of appearance in the data stream; and
- The JRO Requirement Number identifies the requirements that are implemented for this transaction. All requirements that have not been deviated, waived, or submitted for deviation or waiver have been implemented.

#### 1.1.1.4.3 Assemblage and Format of the Data Stream(s)

TBD

Section 1.2 lists the fields in each of the US PowerTrack-TC-AIMS II interface transaction records.

#### **1.1.1.5 Transfer Media**

Initially, transfer will be via formatted ASCII text embedded within an Email. At the next maintenance release of TC-AIMS II, this process will move to a text file attachment to an Email, vice the embedded method.

E-Mail File transfer via system-supported portable storage device, such as a floppy will be supported indirectly using the existing Email “Save-As” functionality. The ITO will be responsible for providing a “Save-As” file to Power Track.

#### **1.1.1.6 Security and Privacy**

TC-AIMS II is an unclassified system containing Sensitive But Unclassified (SBU) information. TC-AIMS will operate in the systems high mode in accordance with a C2 level of accreditation based on the DoD 5200.28-STD. The TC-AIMS II architecture has been designed with protective mechanisms that ensure the data confidentiality, integrity and availability of the data being transmitted including:

- Safeguards protecting data from virus or malicious logic
- Diskettes will be handled and controlled per local security policies.

#### **1.1.1.7 Communications**

SMTP Email will be supported where available. In the event that Email is not available at the TO facility, the TO will be responsible for providing the information to PowerTrack.

#### **1.1.1.8 PowerTrack Points of Contact**

##### 1.1.1.8.1 Technical Point of Contact.

Mr. Jim Kraft  
1010 South 7th Street  
Minneapolis, MN 55415  
(612) 973-6234

##### 1.1.1.8.2 Functional Point of Contact.

Mr. Ronald Owen  
1025 Connecticut Avenue, NW  
Washington, DC 20036  
(202) 261-0802

##### 1.1.1.8.3 Communications Point of Contact.

Mr. Timothy Johnston  
1010 South 7th Street  
Minneapolis, MN 55415  
(612) 973-6318

##### 1.1.1.8.4 Emergency Point of Contact.

PowerTrack Customer Operations  
24-Hour Service Center  
1-800-417-1844

### 1.1.1.9 TC-AIMS II POINTS OF CONTACT

#### 1.1.1.9.1 Technical Point of Contact.

Mike Sarnovsky  
 8000 Corporate Court  
 Springfield, VA 22153  
 (703) 752-0828

#### 1.1.1.9.2 Functional Point of Contact.

William Dunn  
 18000 Corporate Court  
 Springfield, VA 22153  
 (703) 752-0854

#### 1.1.1.9.3 Communications Point of Contact.

Tom Buesing  
 8000 Corporate Court  
 Springfield, VA 22153  
 (703) 752-0846

#### 1.1.1.9.4 Emergency Point of Contact.

TC-AIMS II Help Desk  
 24-Hour Service Center  
 1-866-822-4672

### 1.1.1.10 E-Mail Addresses for Export to PowerTrack

[powertrack@earthlink.net](mailto:powertrack@earthlink.net); Mike.Sarnovsky@eis.army.mil

**TABLE 2 TC-AIMS II Power Track Interface Transaction Definition**

Transaction Identifier	Transaction Direction relative to TC-AIMS II	Record Format Identifiers	System OPR	Interface Agreement
PWRTRKEXP	Export	FILESUM, BATCH, HEADER, ORIGIN, DESTINATION, ESTPICKDELIV, DELIVERY, LINEITEM, MISCELLANEOUS, EOM		The TC-AIMS Agreement

**TABLE 3 TC AIMS II Block 2 AALPS Interface Transaction Details**

Transaction Interface Acronym	Transaction Direction	Transaction Identifier	Transaction Name	Purpose	File Format
PWRTRK	Export	PWRTRKEXP	PWRTRK Bill of Lading Notification		

## **1.2 POWERTRACK INTERFACE RECORD LAYOUT REQUIREMENTS**

The PowerTrack Export records are detailed in the following tables. All follow the same table format consisting of a three-row header and the rows of data about the individual record formats in the export file.

- The first header row contains the title of the record comprised of the Transaction Identifier and the Record identifier within the Transaction.
- The second header row contains the source and destination of the export.
- The third row contains eight column headers including:
  - ID – This is a TC-AIMS II identifier used to uniquely identify this interface data element within the TC-AIMS II interfacing utilities.
  - Description – this is the descriptive name of the data elements as agreed upon by the interfacing systems.
  - Position – This is the sequential position of each data elements in the transaction record.
  - Maximum Width – this is the maximum number of characters allowed for the data element being passed in this position.
  - Type/Class – the valid data types or data classes for the PowerTrack interface include N= Numeric, A= Alpha, A/N= Alphanumeric.
  - Remarks – this includes general information about the data element being passed in this position, including valid values or references to larger sets of valid values.
  - Constraints – Format restrictions for the field’s values.
  - Source TC AIMS II Data element – The object or table and column name used to support the data element in the interface.

**TABLE 4 File Summary Record****\*\* At least one record per export is required.**

Export Identifier PWRTRKEXP.FILESUM							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR0001	Record ID	1	4	N	Always 9999	Mandatory	
PWR0002	Number Of Batches	2	3	N	Number of Batched in the file. Always "1"	Mandatory	
PWR0003	File Count	3	9	N	Count of transactions in this file. Always "1"	Mandatory	
PWR0004	Date	4	8	N	YYYYMMDD From BL Box 3-Date	Mandatory	
PWR0005	Time	5	6	N	HHMMSS Export creation time	Mandatory	
PWR0006	Sender	6	4	A/N	Originating Organization BLOC	Mandatory	
PWR0007	File Amt	7	10	7.2	ZZZZZN.NN From BL Box 28-ESTIMATE	Mandatory	
PWR0008	Text1	8			(Not Used)		
PWR0009	Text1	9			(Not Used)		
PWR0010	Text1	10			(Not Used)		

**TABLE 5 Batch Record****\*\* At least one record per export is required.**

Batch Record PWRTRKEXP.BATCH							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR0011	Record ID	1	4	N	Always 1000	Mandatory	
PWR0012	Batch Number	2	9	N	Batch Number for transmission. Always "1"	Mandatory	
PWR0013	Batch Count	3	9	N	Count of transactions in one batch. Always "1"	Mandatory	
PWR0014	Batch Total	4	10	7.2	ZZZZZN.NN From BL Box 28-ESTIMATE	Mandatory	
PWR0015	Text1	5			(Not Used)		
PWR0016	Text2	6			(Not Used)		
PWR0017	Text3	7			(Not Used)		

**TABLE 6 Header Record**

**\*\* At least one record per export is required.**

<b>Header Record PWRTRKEXP.HEADER</b>							
<b>Source: TC-AIMS II Destination: PWRTRK</b>							
<b>ID</b>	<b>Name</b>	<b>Pos</b>	<b>Max Width</b>	<b>Data Type</b>	<b>Remarks</b>	<b>Constraints</b>	<b>TC-AI</b>
PWR0018	Record ID	1	4	N	Header record. Always 1100	Mandatory	
PWR0019	BOL#	2	15	AN	Shipper's Number. (BL Number)	Mandatory	
PWR0020	PRO#	3	15	AN	Carrier's Number (Not Used)		
PWR0021	PAY TYPE*	4	1	AN	Payment type. Always "P"	Mandatory	
PWR0022	SCAC	5	4	AN	Carrier code	Mandatory	
PWR0023	AMOUNT	6	10	7.2	ZZZZZN.NN From BL Box 28- RATED ESTIMATE	Mandatory	
PWR0024	CARRIER ORDER#	7	15	A/N	Carrier order number (Optional)	Mandatory	
PWR0025	MODE*	8	3	A/N	Transportation mode. Use "RL" for Rail shipment,	Mandatory	
PWR0026	HAZ MATERIALS*	9	1	A/N	Hazardous material flag (Y/N). Use "Y" if there are any hazards or Inherent Hazards in shipment	Mandatory	
PWR0027	DOMESTIC*	10	1	A/N	Domestic flag (Y/N). Always "Y"	Mandatory	
PWR0028	ZERO	11	2	A/N	Always "00"	Mandatory	
PWR0029	TARAUTH	12	30	A/N	Tariff Authority. From BL Box 20-Tariff/Special Authority		
PWR0030	TEXT3	13			(Not Used)		

**TABLE 7 Origin Record****\*\* At least one record per export is required.**

<b>Origin Record PWRTRKEXP.ORIGIN</b>							
<b>Source: TC-AIMS II Destination: PWRTRK</b>							
<b>ID</b>	<b>Name</b>	<b>Pos</b>	<b>Max Width</b>	<b>Data Type</b>	<b>Remarks</b>	<b>Constraints</b>	<b>TC-AI</b>
PWR0031	Record ID	1	4	N	Origin record. Always 1200	Mandatory	
PWR0032	NAME	2	35	A/N	Origin name	Mandatory	
PWR0033	ORIGIN CODE	3	15	A/N	DODAAC Code to identify originating organization	Mandatory	
PWR0034	ADDRESS1	4	40	A/N	Origin address 1	Mandatory	
PWR0035	ADDRESS2	5	40	A/N	Origin address 2		
PWR0036	ADDRESS3	6	40	A/N	Origin address 3		
PWR0037	CITY	7	25	A/N	Origin city	Mandatory	
PWR0038	STATE	8	2	A/N	Origin state	Mandatory	
PWR0039	ZIP	9	9	A/N	Origin zip	Mandatory	
PWR0040	COUNTRY	10	3	A/N	Origin country	Mandatory	
PWR0041	CONTACT	11	35	A/N	Origin contact name		
PWR0042	EMAIL	12	35	A/N	Origin email address		
PWR0043	TEXT1	13			(Not Used)		
PWR0044	TEXT2	14			(Not Used)		
PWR0045	TEXT3	15			(Not Used)		

**TABLE 8 Destination Record****\*\* At least one record per export is required.**

<b>Destination Record PWRTRKEXP. DESTINATION</b>							
<b>Source: TC-AIMS II Destination: PWRTRK</b>							
<b>ID</b>	<b>Name</b>	<b>Pos</b>	<b>Max Width</b>	<b>Data Type</b>	<b>Remarks</b>	<b>Constraints</b>	<b>TC-AI</b>
PWR0046	Record ID	1	4	N	Destination record. Always 1300	Mandatory	
PWR0047	NAME	2	35	A/N	Destination name	Mandatory	
PWR0048	ORIGIN CODE	3	15	A/N	Code to identify issuer's customer	Mandatory	
PWR0049	ADDRESS1	4	40	A/N	Destination address 1	Mandatory	
PWR0050	ADDRESS2	5	40	A/N	Destination address 2		
PWR0051	ADDRESS3	6	40	A/N	Destination address 3		
PWR0052	CITY	7	25	A/N	Destination city	Mandatory	
PWR0053	STATE	8	2	A/N	Destination state	Mandatory	
PWR0054	ZIP	9	9	A/N	Destination zip	Mandatory	
PWR0055	COUNTRY	10	3	A/N	Destination country	Mandatory	
PWR0056	CONTACT	11	35	A/N	Destination contact name		
PWR0057	EMAIL	12	35	A/N	Destination email address		
PWR0058	TEXT1	13			(Not Used)		
PWR0059	TEXT2	14			(Not Used)		
PWR0060	TEXT3	15			(Not Used)		

**TABLE 9 Estimated Pickup/Delivery Record**

**\*\* At least one record is required per export.**

Estimated Pickup/Delivery Record PWRTRKEXP. ESTPICKDELIV Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR0061	Record ID	1	4	N	Estimated Pickup/Delivery record. Always 1400	Mandatory	
PWR0062	Est Pu Date	2	8	N	Est. pickup date. YYYYMMDD From BL Box 3-Date BL Prepared	Mandatory	
PWR0063	Est Dv Date	3	8	N	(Not Used)		
PWR0064	Driver Name	4	35		(Not Used)		
PWR0065	Trailer No	5	15		(Not Used)		
PWR0066	Seal No	6	15		(Not Used)		
PWR0067	Nod Inst	7	75		(Not Used)		
PWR0068	Nod Special Inst	8	75		(Not Used)		
PWR0069	Text1	9			(Not Used)		
PWR0070	Text2	10			(Not Used)		
PWR0071	Text3	11			(Not Used)		

**TABLE 10 Delivery Record**

**\*\* At least one record per export is required.**

Delivery Record PWRTRKEXP. DELIVERY							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR0072	Record ID	1	4	N	Delivery record. Always 1500	Mandatory	
PWR0073	DV DATE	2	8	N	(Not Used)		
PWR0074	DV TIME	3	6	N	(Not Used)		
PWR0075	RECIEVER NAME	4	35	A/N	(Not Used)		
PWR0076	TEXT1	5		AN	(Not Used)		
PWR0077	TEXT2	6		AN	(Not Used)		
PWR0078	TEXT3	7		AN	(Not Used)		

**TABLE 11 Line Item Record**

**\*\* At least one record per export is required.**

Line Item Record PWRTRKEXP. LINEITEM							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR0079	Record ID	1	4	N	Line Item record. Always 1600	Mandatory	
PWR0080	LI#	2	4	A/N	Line item number. Always "1". (One)	Mandatory	
PWR0081	PO NUMBER	3	35	A/N	Purchase order number /TCN		
PWR0082	BUDGET CENTER	4	100	A/N	Accounting code (LOA) From BL Box 12-Appropriation Chargeable	Mandatory	
PWR0083	QUANTITY	5	9	N	Quantity of line item (Not Used)		
PWR0084	TYPE*(UM)	6	2	A/N	Type of line item (e.g., box, carton, etc.) Always "UM" for Unit Move		
PWR0085	CLASS	7	4	A/N	Line item class (Not Used)		
PWR0086	MSDS	8	4	A/N	Material Safety Data Sheet code (Not Used)		
PWR0087	BILL WT	9	10	N	Billed weight. ZZZZZN. NN	Mandatory	
PWR0088	BILL WT UOM*	10	2	A/N	Billed unit of measure	Mandatory	
PWR0089	ITEM WT	11	9	N	Actual weight. ZZZZZN. NN (Not Used)		
PWR0090	ITEM WT UOM*	12	2	A/N	Actual unit of measure (Not Used)		
PWR0091	DESCRIPTION	13	75	A/N	(Not Used)		
PWR0092	LI AMT	14	10	7.2	(Not Used)		
PWR0093	LENGTH	15	9	A/N	(Not Used)		
PWR0094	HEIGHT	16	9	A/N	(Not Used)		
PWR0095	WIDTH	17	9	A/N	(Not Used)		
PWR0096	DIM UOM	18	2	A/N	(Not Used)		
PWR0097	TEXT1	19		A/N	(Not Used)		
PWR0098	TEXT2	20		A/N	(Not Used)		
PWR0099	TEXT3	21		A/N	(Not Used)		

**TABLE 12 Miscellaneous Record**

**\*\* This record is optional. TC-AIMS II will send no Miscellaneous Records.**

Miscellaneous Record PWRTRKEXP. MISCELLANEOUS							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR00100	Record ID	1	4	N	MISCELLANEOUS record. Always 1700	Mandatory	
PWR00101	TEXT1	2		A/N	Not populated		
PWR00102	TEXT2	3		A/N	Not populated		
PWR00103	TEXT3	4		A/N	Not populated		

**TABLE 13 End of Message Record**

**\*\* At least one record per export is required. This is the last line in the message.**

End of Message Record PWRTRKEXP. EOM							
Source: TC-AIMS II Destination: PWRTRK							
ID	Name	Pos	Max Width	Data Type	Remarks	Constraints	TC-AI
PWR00104	END	1	2	A	Always “//”	Mandatory	