

A Petroleum Industry Data Exchange

PIDX

Implementation Guideline for

EDI

Electronic Data Interchange

GRADE - Gas Revenue Accounting Data Exchange

API © 1997
Copyright American Petroleum Institute
Petroleum Industry Data Exchange Committee
All rights reserved.

FOREWORD

API publications necessarily address problems of a general nature. With respect to particular circumstances, local, state and federal laws and regulations should be reviewed.

API is not undertaking to meet duties of employers, manufacturers or suppliers to warn and properly train and equip their employees, and others exposed, concerning health and safety risks and precautions, nor undertaking their obligations under local, state, or federal laws.

Nothing contained in any API publication is to be construed as granting any right, by implication or otherwise, for the manufacture, sale or use of any method, apparatus, or product covered by letters patent. Neither should anything contained in the publication be construed as insuring anyone against liability for infringement of letters patent.

Generally, API standards are reviewed and revised, reaffirmed, or withdrawn at least every five years. Sometimes a one-time extension of up to two years will be added to this review cycle. This publication will no longer be in effect five years after its publication date as an operative API standard or, where an extension has been granted, upon republication. Status of the publication can be ascertained from the API authoring department (tel. 202-682-8000). A catalog of API publications and materials is published annually and updated quarterly by API, 1220 L Street, Northwest, Washington, DC 20005.

For information contact:

American Petroleum Institute

Petroleum Industry Data Exchange
1220 L Street, Northwest
Washington, DC 20005
(202) 682-8184
<http://www.pidx.org>

To order contact:

American Petroleum Institute
Publications and Distribution
1220 L Street, Northwest
Washington, DC 20005
(202) 682-8375
<http://www.api.org>

TABLE OF CONTENTS

1.0 INTRODUCTION

- 1.1 Purpose of Guidelines
- 1.2 Scope and Applicability
- 1.3 Responsible Entity
- 1.4 Introduction to EDI
- 1.5 How to Use Implementation Guidelines

2.0 BUSINESS ISSUES

- 2.1 Implementation Considerations
- 2.2 Timing of Transactions
- 2.3 Modes of Operation
- 2.4 Security
- 2.5 Recovery Procedures
- 2.6 Audit Considerations

3.0 LEGAL CONSIDERATIONS

- 3.1 General Introduction
- 3.2 Recordkeeping
- 3.3 Authentication
- 3.4 Trading Partner Agreements
- 3.5 Third Party Agreements
- 3.6 Laws, Rules and Regulations
- 3.7 Model Trading Partner Agreement

4.0 ENVIRONMENTS

- 4.1 System Architecture
- 4.2 Application Integration
- 4.3 Translation

5.0 MAINTENANCE

- 5.1 Maintaining Guidelines
- 5.2 Maintaining X12 Standards
- 5.3 Version/Release Timing

6.0 COMMUNICATION

- 6.1 General Introduction
- 6.2 Protocols
- 6.3 Point-to-Point
- 6.4 Third Party Service
- 6.5 Network Interconnects

Not used
Not Used
Not Used

Not Used

7.0 MISCELLANEOUS

7.1

8.0 GLOSSARY

9.0 FORMS AND DOCUMENTS

Not used

9.1 X12 Forms

Not used

9.2 X12 Documents

Not Used

9.3 Industry Forms

Not Used

9.4 Industry Documents

Not Used

9.5 Company Forms

Not Used

9.6 Company Documents

10.0 INDUSTRY CONVENTIONS

Not Used

10.1 Introduction

Not Used

10.2 Control Segments

Not Used

10.3 Large Code Lists Maintained by ASC X12

Not Used

10.4 Code Lists Not Maintained by ASC X12

Not Used

10.5 Data Element Cross-Reference Matrix

Not Used

10.6 Data Segment Cross-Reference Matrix

10.7 Industry Conventions

867 Product Transfer and Resale Report

1.0 INTRODUCTION

1.1 Purpose of Guidelines

The purpose of this guide is to enhance by means of Electronic Data Interchange the capability to communicate by computer between trading partners.

1.2 Scope and Applicability

Because of the wide range of user industries, the ASC X12 Standards were created to be as broad as possible and to accommodate all business needs. The generic result, although usable, has much more information than is of interest to any particular group. In a practical sense, in order for the Standards to be used in an efficient and effective manner, the scope needs to be defined in more selective terms.

This guide was prepared for use by the Gas Revenue Accounting Data Exchange (GRADE) and is intended to serve as a general guideline to achieve consistency in application within the petroleum industry and with our trading partners for the processing of ASC X12 Transaction Sets.

It is anticipated companies involved in implementing EDI will utilize this guideline in developing their own guide to meet their specific needs.

The American Petroleum Institute (API) Internal Audit Committee's "ELECTRONIC DATA INTERCHANGE (EDI) AUDIT CONTROL GUIDE" addresses EDI issues related to audit, security, trading partner agreements, value added networks, data security and application controls. The API guide should be reviewed in conjunction with this GRADE Implementation Guide to gain a broader perspective of the issues involved.

1.3 Responsible Entity

EDI is a partnership. It takes at least two organizations to do EDI. EDI is also a new way of conducting business that involves several individuals or functional groups within each organization. For EDI to be successful, all who are involved must work together in an open and informed environment.

There are specific functional groups within your organization that will need to be involved in the exchanging of EDI. The organization needs to have one individual assigned as the EDI Coordinator. Each functional group needs a contact person from its personnel to assist in the implementation process and the ongoing operations.

Some areas of accountability are:

- Accounts Payable
- Information Services (MIS)
- Accounts Receivable
- Sales Organization
- Purchasing Group

- Financial Group

There may be other functional groups within a company and they should be included in above list.

1.4 Introduction to EDI

EDI is defined as the electronic transmission of business documents in a standard format between two companies. The definition can be expanded further to include the electronic transmission of business documents from the application program of one computer to the application program of another computer within the framework of a standard format. The key elements in the definition are business documents and standard format. EDI is a technique that reduces costs and errors associated with a paper document environment. EDI replaces the mail delivery and reentry of documents with the electronic mailbox and the delivery of your business document directly to your computer application program.

1.5 How to Use Implementation Guidelines

Chapters 1 through 9 of this Implementation Guideline should be reviewed prior to working through the detail of the transaction sets (business documents) contained in Chapter 10. A review of Chapters 1 through 9 will provide insight into the various issues of requirements (i.e., business considerations, translation software, formats, legal issues, terminology, communications considerations) which are not covered in the detail of the transaction sets.

Any areas of disagreement or misunderstanding should be resolved to the mutual satisfaction of all trading partners involved. Any data contained in this guideline which is felt to be incorrect from a petroleum industry viewpoint or which should be changed or updated based upon implementation experience should be brought to the attention of the Chairperson of the Gas Revenue Accounting Data Exchange User Group. Any such changes will be handled by the GRADE User Group with the PIDX Standards Sub-Committee as noted in Chapter 5.0 MAINTENANCE, Section 5.1 MAINTAINING GUIDELINES or Chapter 9.0 FORMS AND DOCUMENTS, Section 9.1 X12 FORMS.

2.0 BUSINESS ISSUES

2.1 Implementation Considerations

The purpose of this section is to provide a guideline for the successful implementation of EDI in your organization.

EDI is a major undertaking in that it impacts many areas of a company's structure. The management of the company must be involved in the approval phase of the project to ensure adequate support, both from financial and support resources and assistance from the area impacted.

The most common problems to be aware of when undertaking the implementation of EDI are:

- Avoid deviating from the published standards. This may cause you to have to customize your system when adding new trading partners and increase time and cost.
- Avoid too much too soon - do not commence the use of your EDI system in a production mode prematurely.

Be sure that your systems interfacing with EDI are working properly. EDI is not a cure for the problems you have in your existing systems.

EDI IMPLEMENTATION CHECKLIST

- Management commitment to EDI
- Establish a plan
- Establish a project team
- Designate EDI business contacts
- Review internal system and business procedures
- Conduct a trading partner survey
- Conduct a communication/equipment survey
- Review documents to be exchanged
- Develop an overall design
- Decide on translation software configuration
- Code and test the interface to in-house systems
- Decide on network provider
- Implementation of translation software
- Conduct system test with translation and network
- Conduct system test with your trading partner
- Determine production start up date
- Implement

2.2 Timing of Transactions

Determine when the business transaction is made available to the trading partner, i.e., release of remittance advice prior to funds settlement. There are three areas to be considered within timing of transmissions: legal, business, and technical issues.

Legal Issues — Mailbox concerns to evaluate:

- Consideration for post mark
- Consideration of utilizing VAN 'warehousing'
- Utilizing 'recall' message time-frame
- Timing of transaction acknowledgement
- Timing of mail forwarding to recipient

Business Issues — Determine when the business transaction will be made available to the trading partner. This involves decisions on warehousing, release, cancellations and return, dependent on the type of business transaction.

Technical Issues — Determine the ability of the existing computer systems to respond within some time definition. System changes might be necessary to accommodate the identified business needs.

2.3 Modes of Operation

Basically, most transmissions would be in a production mode. However, some provision must be made for a testing mode as new version/releases are implemented.

2.4 Security

The EDI Standard is designed to provide at least as high a degree of security as today's mail or telephone service. The Standard prevents the commingling of data types and makes it extremely difficult to obtain unauthorized data. Even with this assurance, users should take steps to assure confidentiality of transactions as they do with current mail and telephone systems.

The security needs to be reviewed on three levels: Internal, Trading Partner, Third Party Carriers.

Review your Internal Security Requirements for: Data Communications, Software, and Data. Review with Trading Partner(s) their security requirement in the above areas. Review the security and access requirements of the carrier.

Depending on the type of data and its impact to your operations, security should be as strong as necessary to protect you and your Trading Partner. These arrangements should be spelled in Contract, Trading Partner Agreements, and Documentation. There are many approaches to securing a system. The six (6) typical approaches here can be used singularly or as a package, i.e., for financial or pricing data it may be desirable to have all six (6) in place.

The six approaches are:

- **Data Encryption**
 - Data is encoded by a software source encoder into unreadable scrambled text. The receiving party would unscramble it to plain text.
- **Authentication**
 - Authentication is a technique of identifying the originator of a message as well as protecting the data integrity of a message. Authentication requires that two parties share a common private key. This private key is used to create an encrypted Message Authentication Code (MAC) that is dependent on the contents of message to be protected. The originator of the message will calculate the MAC and append the MAC to the message. The recipient of the message will calculate a MAC and compare it to the MAC appended to the message. If the MAC are equal, the recipient is assured of the originator of the message and the integrity of the message.
- **Call Back Modem**
 - This method has the receiving party call the sender back at a predetermined phone number before transmission occurs.
- **Passwords**
 - Sender protects data with password that must be supplied to the system before the Receiving Party obtains access to the data.
- **Access Codes**
 - Similar to Passwords, the Receiving Party must enter certain codes to access the data.
- **Terminal Source Security**
 - This is a Software Coding that prohibits data from being sent or received except from a specific logical or physical device. If the device is not used, then the software erases the screen. In addition, this can be set up with a time slot. If transactions are attempted outside of the specified time slot, the software will cease operating.

Each of these elements plus physical security, when used, can provide an effective deterrent to unauthorized entry to systems.

2.5 Recovery Procedures

Establish backup procedures to provide for retransmitting EDI messages.

- Establish backup and recovery procedures if computer systems or transmission fails.
- Establish a maximum number of attempts of retransmission following a text transmission error, to minimize communication costs for bad connections.
- For real time transactions, a 24 to 48 hour immediate access backup should be the minimum.
- For batch transactions, such as the Invoice, a 1 to 2 week immediate access backup should be the minimum.

- In either case, some type of archival storage should be maintained where the data is backed up and stored on a more permanent basis. The permanent archives and supporting system should provide for recovering a specific EDI message from the archives and retransmitting it.
- The backup and recovery system must be thoroughly documented to allow anyone with the proper authority to access the system, to retransmit data.

USE OF THE FUNCTIONAL ACKNOWLEDGMENT

- The Functional Acknowledgment (997) transaction set can be used to provide a level of automation in the backup and recovery area. If the EDI system expects to receive a Functional Acknowledgment for every transaction that it sends, then the EDI message should be available for retransmission until a Functional Acknowledgment corresponding to a specific EDI message is received. Once the Functional Acknowledgment is received the original EDI message can be archived regardless of the normal archive timing.
- The system could be designed to provide a degree of flexibility. The use of Functional Acknowledgments could then vary based on business requirements. It may be appropriate to send/receive Functional Acknowledgments by trading partner, transaction, some combination of the two, or some other variable unique to your EDI requirements.
- Your level of risk must be known when considering whether the additional costs of including a flexible Functional Acknowledgment component in your EDI system and sending/receiving Functional Acknowledgments are justified.

ESTABLISH RECOVERY PROCEDURES TO ALLOW FOR CONTROLLED MANAGEMENT OF UNUSUAL TELECOMMUNICATIONS PROBLEMS.

- Some potential problems that should be managed by the EDI system:
 - A trading partner's computer that won't answer when your computer calls to pickup or deliver EDI messages.
 - A bad connection that causes continuous or an excessive number of retransmissions.
- Develop a way for the EDI system to notify someone when a predetermined threshold number of errors are encountered.

DISASTER RECOVERY CONSIDERATIONS

Disaster recovery becomes correspondingly critical to the amount of business that is conducted through the EDI channels. Consider the consequences to you and your trading partners if you were suddenly unable to telecommunicate for a week.

It would be unwise to assume that you could fall back on a paper based system. Your trading partners may not be able to quickly switch from EDI messages to mailing their business transactions to you. You may not have immediate access to the resources within your organization that are

needed to process paper transactions when many departments all require the same resources and with the same urgency.

Have a plan in place to deal with extreme problems such as:

- Total loss of a Data Center or computer system
- Loss of a phone company switch station servicing your area

2.6 Audit Considerations

Introductions

Audit Trails need to be established in any endeavor that transmits business information between two or more separate entities.

These trails need to provide a means to reconstruct total transaction sets in the event of failure somewhere in the process.

Audit Trails

Audit considerations should provide for:

- Ensuring all records and/or documents are sent and received
- All errors and causes are documented and reported
- Time recording of Communication Start and Stop for both parties
- User Report for record and document counts introduced into any software package

Areas of Concern

Most EDI translator and communications Software packages provide print-out of Transaction Sets and Communication Session Statistics.

Some typical areas are:

- Communication Log (Connection Log) record times for:
 - Connection to Value Added Network (VAN)
 - Log On Time to VAN
 - Sending or Receiving Times
 - Completion
 - Log Off
- Interpreter Log
 - List of records
 - List of Transaction Sets
 - Error found during the Interpretation Phase
(Records in error should be highlighted in some fashion)
- Generator Log
 - List of Functional Group transmitted and generated
 - Errors found in generation of the EDI formatted record

User reports should highlight:

- Expected record counts of files to be introduced into EDI System
- Document counts to compare to Transaction Sets being transmitted

3.0 LEGAL CONSIDERATIONS

3.1 General Introduction

Electronic Messaging Systems (EMS) and applications such as EDI affect business practices. Because the law does not address the complexities of this technology, doing business via EMS may involve legal uncertainties. EMS complexity can only increase as more sophisticated hybrid and enhanced service offerings become available. The law has not kept pace with the complexity of EMS.

Businesses require control over their contractual correspondence. Such control includes determination of when correspondence is transmitted, to whom it is transmitted, when it reaches the recipient, and an appraisal of the accuracy, integrity and risks of the communication. Some of the legal issues include, e.g., various offer and acceptance rules, the propriety of paperless communications, EMS and electronic mailbox control, ownership and liability, and various risks of transmission. Further study is required to identify problem areas and to propose flexible and adaptive rules fostering greater legal certainty.

Most commercial law has been developed without consideration of electronic messaging systems such as EDI. The precise legal status of EDI transmissions is therefore unclear in many cases. It may be appropriate for commercial law to be modified to delineate the right and duties of EDI users with greater certainty.

EDI has been used successfully for a considerable number of years. For a large and impressive list of companies, legal uncertainties have not posed a substantial obstacle to the adoption of EDI. In many instances the legal risks of using EDI—when compared to the risks associated with traditional paper-based trading systems—have been considered manageable. Certain legal risks have been addressed with special agreements between trading partners and the adoption of appropriate in-house policies.

It is important that new users consult with counsel throughout the EDI implementation process. This chapter provides a very brief introduction to some of the issues counsel should consider addressing when a new user implements EDI. The full range of issues that must be dealt with, and the importance of any particular issue, will vary from one user to the next.

This section attempts to review some of these legal issues. The comments below are intended to be utilized as a guide and are not intended as legal advice.

3.2 Recordkeeping

Internal control systems should be reevaluated in the context of EDI to assure responsibility for data maintenance, including audit trail, transaction reconciliation, and backup capability.

When business transactions are recorded on paper documents, businesses can store those documents as evidence of what took place. EDI

does away with the paper documents, of course. Internal recordkeeping systems should therefore be reevaluated in the context of EDI. Among the issues to be addressed are these:

- Retention of both standardized formats and translated data for both incoming and outgoing transactions.
- Retention of translation routines/software by version release in electronic or hard copy format. This may be necessary to provide the basis for translation of standardized messages/transactions for prior versions and releases of standards no longer supported by the company.
- Retention of translation files/tables used to convert external codes to internal codes.
- Keying record retention/destruction policies to existing regulatory requirements covering various transactions or business requirements, i.e., retention requirements for data related to tax reports, statute of limitations relating to legal action such as lawsuits and bankruptcy proceedings and retention requirements associated with various business documents relating to operating agreements/contracts.

3.3 Authentication

Assuring data integrity—that it remains unaltered throughout the trading process is critical. Company procedures as well as network access requirements vary widely. What degree and strength of authentication systems and procedures is commercially reasonable is unclear.

Traditionally, paper documents and signatures have been used to authenticate the data that constitutes the majority of commercial transactions. Authentication of EDI transmissions relies on different methods. With the implementation of any particular EDI system, users and their counsel should consider these issues in the context of the user's particular needs:

- Will the integrity and completeness of data transferred between trading partners be adequately confirmed before it is relied upon?
- Will the source of a message, and the legal authority of that source, be satisfactorily verified before the message is relied upon?
- Will adequate records be kept to show the authenticity of messages were tested to the degree appropriate?

3.4 Trading Partner Agreements

Given the inadequate treatment of EDI in the law, users should exercise care in developing and entering into trading partner and third party agreements. Comprehensive trading partner and third party agreements should be executed prior to commencing EDI trading. In addition to conventional "standard terms and conditions" which (with some variability) are used to define conventional trading relationships on purchase orders, users should consider what impact data communications and computer systems have on their business correspondence and trading relationships—and thus appropriate provisions for EDI trading.

Many EDI users enter a special agreement with each of their trading partners to govern their EDI. (The ABA has published a model TPA that can be used to pattern agreements. See Appendix A). The provisions that

should be included in such an agreement will vary from user to user. Among the issues that might be addressed in a trading partner agreement are these.

- In a recitals clause, state the parties intention to contract electronically.
- Identify the specific standards, transaction sets, and versions which may be sent via EDI.
- Alternatively, permit a party to transmit any transaction set, binding the recipient to any of them upon which he reasonably relied.
- Mention industry guidelines—either incorporated by reference, or specifically recluded from the agreement.
- Identify Value Added Network (VAN) service providers and apportion VAN's costs between the trading partners.
- Hold each trading party liable for the acts of their respective VAN. Where both parties use the same VAN, the sender of an EDI transaction shall be liable.
- Require successful system/transaction set testing before commencing EDI trading.
- Use security procedures sufficient to ensure that transactions are reliable and that they are sufficient to be authenticated.
- State the time of receipt. e.g., is receipt completed when a transaction is placed in a VAN mailbox, or after a functional acknowledgment is communicated to the sender?
- Notify the sender of a garbled transmission, where practicable. Otherwise, the sending party's records of the document shall govern.
- Resolve whether the trading partner agreement is a free standing agreement or an appendix to a pre-existing set of terms and conditions.
- State the precedence of the trading partner agreement (vis-a-vis existing business terms and conditions) to avoid conflicts.
- Include clauses attempting to satisfy the statute of frauds.
- Include a comprehensive appendix (intended to reduce confusion).
- Consider including an arbitration clause.

3.5 Third Party Agreements

If user employs a third party network (TPN), also referred to as Value Added Network or VAN, the TPN will probably require that the user enter into a data communications agreement with it. Among the issues the user should consider addressing in such an agreement are the following:

- A description of the services to be provided.
- The warranty by the TPN of its services.
- The liability of the TPN for a breach of the agreement or any damages resulting from the mistakes of the TPN or its employees.
- The security, confidentiality and integrity of messages handled by the TPN.

- The responsibility of the TPN in the event of a system failure or disaster.
- The disposal of data stored by the TPN in the event of a disagreement or an interruption or termination of services.
- A description of the applicable pricing structure.
- The termination of the agreement.

3.6 Laws, Rules and Regulations

There is no adequate or comprehensive source of “EDI law”, thus no attempt is made to list them. When implementing EDI, users and their counsel should consider whether any special laws, rules or regulations apply to the users’ such as utilities and government contractors should carefully consider whether regulations applicable to them restrict the implementation of EDI. It is not uncommon, for example, for government regulations to be written to require (or at least be construable to require) documents written on paper or ink signatures.

When implementing EDI, users and their counsel should consider whether any special laws, rules or regulations apply to the users such as utilities and government contractors should carefully consider whether regulations applicable to them restrict the implementation of EDI. It is not uncommon, for example, for government regulations to be written to require (or at least be construable to require) documents written on paper or ink signatures.

Users should also be aware that the International Chamber of Commerce has adopted Uniform Rules of Conduct For Interchange of Trade Data by Teletransmission (UNCID). UNCID purports to set forth voluntary rules of communication by EDI users. A copy of the UNCID rules may be obtained from the ICC Publishing Corporation, 156 5th Ave., New York, NY 10010. It should be noted that ASC X12 neither endorses nor opposes UNCID.

3.7 Model Trading Partner Agreement

The Model Agreement and Commentary, which is included in this document as Appendix A, is the subject of an extensive report which is available from the ABA Section of Business Law (see order information below). The Model Agreement should not be used without consulting the report. It may not be copied or disseminated for any purpose or by any party without the express written consent of the American Bar Association.

TO ORDER: Copies of The Commercial Use of Electronic Data Interchange: A Report and Model Trading Partner Agreement are available through ABA/Order Fulfillment, 750 North Lake Shore Dr., Chicago, IL 60611 (Telephone: 312/988-5555).

4.0 Environments

This section is not used for this application.

5.0 MAINTENANCE

5.1 Maintaining Guidelines:

Petroleum industry guidelines are reviewed and approved by the Petroleum Industry Data Exchange (PIDX) Standards Sub-Committee. The review and update of published implementation guides is the responsibility of the PIDX User Group originating the guidelines. Updated guidelines will be prepared as new versions or releases dictate, as experience with the standard dictates or at intervals adopted by the PIDX Standards Sub-Committee.

5.2 Maintaining X12 Standards:

ANSI ASC X12 is the domestic standard recommended by PIDX.

The maintenance of X12 standards is the responsibility of the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12. The ASC X12 Committee is the committee established by ANSI to develop national standards for Electronic Data Interchange (EDI). Changes, modifications, additions and new standards required by the petroleum industry are submitted to ASC X12 as the result of requirements developed in the PIDX User Groups. However, any participant or member of ASC X12 may submit maintenance items or requests for new transactions to the appropriate X12 subcommittee.

5.3 Version/Release Timing

The timing of implementing new versions/releases of standards is at the discretion of the individual company and their trading partner. It is recommended the time frame within which new version/releases of existing standards (documents) currently being exchanged will be implemented be specified between trading partners in Trading Partner Agreements or other types of contracts or agreements that may be utilized for EDI transactions. The time frame could be specific or general in nature such as a specific number of weeks or months after publication of a new Draft Standard.

In addition to the timing for implementing new standards/draft standards, the number of previous standards which will be supported should be specified. Although this may not present a problem initially, as more trading partners are brought into EDI applications and as additional versions/releases are published the maintenance of the different standards for different trading partners presents an administrative and programming bottleneck. It is suggested agreements should specify only the current and two previous release of standards will be supported.

6.0 COMMUNICATION

6.1 General Introduction

Electronic Data Interchange depends on communication between companies. This section discusses the potential concerns in this communication.

6.2 Protocols

A word derived from 'programmed transmission control' which relates to the characteristics of a communication transmission such as line timing (asynchronous, bisynchronous), line speed, error detection, retransmission procedures, and message control. To establish a telecommunications connection, computers have to be able to speak to each other requiring agreed upon protocols and transmission parameters.

6.3 Direct Transmission

Direct computer-to-computer communications with a trading partner requires that both firms (1) use compatible communication protocols, (2) have the same transmission speed, (3) have dial-up lines available at the same time or leased lines, and have compatible modems. Depending upon the following variables direct transmission with selected trading partners may be implemented:

- Transmission management capability
- Protocol compatibility
- VAN costs vs. direct transmission costs
- Security (banks generally do not use VANS for security reasons)

6.4 Third Party Service

For most firms, the use of Third-Party Networks may be most appropriate. The concerns mentioned in Direct Transmission can be solved with electronic mailboxing provided by this service. Mailboxing permits one trading partner to send transactions sets to another's mailbox for storage. When the other partner is ready, it will retrieve the transaction sets without concern as to a partner's transmission modes, protocols, and transmission speeds which were dealt with by a third party service. This enables establishing trading partnerships with many firms with varied computer equipment and only being required to have compatible telecommunication equipment with a third party service.

Other beneficial services are provided but the primary role of a third party service is to accept data and maintain its integrity throughout the mailboxing process.

Once the decision to use a third party service is made, there are critical issues to consider.

- Determine that the provider has the commitment, stability, and financial resources to stay in business for the long term. If your business becomes dependent on EDI and outside services, it is critical that the serv-

ice provide continuous service while maintaining an ongoing system enhancement program.

- The third party provider must have 'gateway' capability with other third parties because not all companies use the same service.
- It is important that the third party service be able to do business internationally if your firm's business dictates. Foreign supplier interface could be more important than with domestic firms.
- The Third-Party should be active in furthering development and acceptance of inter-industry standards such as ASC X12. Further development and refinement of these standards is extremely important to EDI and to fostering electronic communications.
- Be sure the 'Service' has incorporated sufficient security measures.
- The Third-Party should be working with all industries to increase the likelihood of maximum trading partner exploitation.

6.5 Network Interconnects

Since all parties do not use the same Third-Party service and the EDI networking market is very much customer driven, "Gateways" were established by networking vendors to meet customer needs for interfacing with trading partners. A "Gateway" is a route of entry to a computer not owned by the accessing party. Gateway capabilities exist between all major Third-Party Network vendors. In order to execute this capability, an agreement must be established between two networking vendors. A Third-Party Network's existing gateway alliances should be a consideration in selecting a service along with their future plans for developing these relationships.

7.0 Miscellaneous

This section is not used for this application.

8.0 GLOSSARY

ANSI

American National Standards Institute

ANSI Standard

A document published by ANSI that has been approved through the consensus process of public announcement and review. Each of these standards must have been developed by an ANSI committee and must be revisited by that committee within five years for update. See Draft Standard For Trial Use.

API

American Petroleum Institute

Application Acknowledgment

A transaction set whose purpose is to return a response to a transaction set which has been received and processed in an application program. The Purchase Order Acknowledgment transaction set 855 is an example of an application acknowledgment, used to respond to the Purchase Order transaction set 850 presenting such things as whether the receiver can fulfill the order and it can be done on time.

Application Advice (824)

A transaction set that accepts, rejects, or identifies errors in the content of any transaction set beyond the normal syntax checks.

Area, Transaction Set

Identifies a predefined area within a transaction set (header, detail, summary) containing segments and their various attributes.

ASC X12

Accredited Standards Committee, X12 comprised of industry members for the purpose of creating EDI standards for submission to ANSI for subsequent approval and dissemination; or for submission to the UN/ECE for approval and submission of UN/EDIFACT standards.

Authentication

A mechanism which allows the receiver of an electronic transmission to verify the sender and the integrity of the content of the transmission through the use of an electronic "key" or algorithm which is shared by the trading partners. ANSI standards covering authentication are X12.42, Cryptographic service message, and X12.58, security structures.

BSR

Bureau of Standards Review

CEC

Commission of the European Communities

CEN

European Committee for Standardization

CIDX

Chemical Industry Electronic Data Interchange Organization

CMEA

Council for Mutual Economic Assistance

Compliance Checking

A checking process that is used to ensure that a transmission complies with ASC X12 syntax rules.

Composite Data Element

One or more component data elements delimited by sub-element separators.

Conditional (C)

A data element requirement designator which indicates that the presence of a specified data element is dependent on the value or presence of other data elements in the segment. The condition must be stated and must be computer processable.

Control Segment

A control segment has the same structure as a data segment but is used for transferring control information for grouping data segments. Transaction Set Control Segments (ST/SE), and Functional Group Control Segments (GS/GE), defined in X12.6, and Interchange Control Segments (ISA/IEA,TA1) defined in X12.5.

Control Validation

Confirmation that information within the control segments is correct.

COPAS

Council of Petroleum Accountants Societies.

Data Element

The basic units of information in the EDI standards containing a set of values that represent a singular fact. They may be single character codes, literal descriptions or numeric values.

Data Element Length

This is the range, minimum to maximum, or the number of character positions available to represent the value of a data element. A data element may be of variable length with range from minimum to maximum, or it may be of fixed length in which the minimum is equal to the maximum. (X12.3)

Data Element Reference Number

Reference number assigned to each data element as a unique identifier.

Data Element Requirement Designator

A code defining the need for a data element value to appear in the segment if the segment is transmitted. The codes are mandatory (M), optional (O), or conditional (C).

Data Element Separator

A unique character preceding each data element that is used to delimit data elements within a segment.

Data Element Type

A data element may be one of six types: numeric, decimal, identifier, string, date, or time.

Delimiters

The delimiters consist of two levels of separators and a terminator. The delimiters are an integral part of the transferred data stream. Delimiters are specified in the interchange header and may not be used in a data element value elsewhere in the interchange. From highest to lowest level, the separators, and terminator are segment terminator, data element separator, and sub-element separator (only used in EDIFACT).

DISA

Data Interchange Standards Association. A non-profit organization funded by X12 which serves as the Secretariat for X12.

Direct Transmission

The exchange of data from the computer of the sending party directly to the computer of the receiving party. A third party value added service is not used in a direct transmission.

Draft Standard for Trial Use

Represents a document approved for publication by the full X12 committee following membership consensus and subsequent resolution of negative votes. (Final Report of X12 Publications Task Group) The Draft EDI Standard for Trial Use document represents an ASC X12 approved standard for use prior to approval by ANSI. See ANSI Standard.

EBCDIC

Extended binary-coded-decimal interchange code. Transmitted documents being sent from one sender to one receiver.

EDI

Electronic Data Interchange, the computer-to-computer exchange of information which has traditionally been communicated using paper documents.

EDICC

Electronic Data Interchange Council of Canada

UN/EDIFACT

United Nations Electronic Data Interchange for Administration, Commerce, and Transport.

EDIFACT Board

Advisory and support Team for a number of the UN/EDIFACT Rap-
porteurs.

EDI Translation

The conversion of application data to and from the X12 standard format.

EDI Translator

Computer software used to perform the conversion of application data to standards such as ASC X12 and EDIFACT.

EIDX

Electronics Industry Data Exchange

Electronic Data Interchange (EDI)

The computer application to computer application exchange of business information in a standard format.

Electronic Envelope

Electronic information which groups a set of transmitted documents being sent from one sender to one receiver.

Element Delimiter

Single character delimiter follows the segment identifier and each data element in a segment except the last.

Electronic Mailbox

A term used to refer to the place where an EDI transmission is stored for pickup or delivery within a third party service provider's system. Trading partners can also maintain mailboxes within their own domain.

Encryption

A process of transforming cleartext (data in its original, unencrypted form) into ciphertext (encrypted output of a cryptographic algorithm) for security or privacy.

Functional Acknowledgment

A transaction set (997) transmitted by the receiver of an EDI transmission to the sender, indicating receipt and syntactical acceptability of data transmitted according to the ASC X12 standards. The functional acknowledgment allows the receiving party to report back to the sending party problems encountered by the syntax analyzer as the data is interpreted. It is not intended to serve as an acknowledgment of data content. See also X12.6.

Functional Group

A group of one or more transaction sets bounded by a functional group header segment and a functional group trailer segment.

Functional Group Segments

GS/GE segments identify a specific functional group of documents such as purchase orders.

Gross Working Interest

The percentage of the costs of producing and developing incurred by a working interest owner.

Hexadecimal

Base 16 notation commonly used to represent binary values.

Industry Conventions

Defines how the ASC X12 standards are used by the specific industry.

Industry Guideline

Defines the EDI environment for using conventions within an industry. It provides assistance on how to implement the X12 standard.

Interchange Control Segments

ISA/IEA segments identify a unique interchange being sent from one sender to one receiver (see electronic envelopes).

Interchange Control Structure

The interchange header and trailer segments envelope one or more functional groups or interchange related control segments and perform the following functions: 1) defines the data element separators and the data segment terminators, 2) identifies the sender and receiver, 3) provides control information for the interchange, and 4) allows for authorization and security information. (X12.5)

Joint Operations

Two or more parties join together to explore, develop, and/or operate a property or facility and share costs and benefits of the operation.

Loop

A group of semantically related segments; these segments may be either bounded or unbounded. (X12.6) The N1 loop, which includes segments N1 to PER for name and address information, is an example of a loop.

Mandatory(M)

A data element/segment requirement designator which indicates the presence of a specified data element is required.

Mapping

The process of identifying the standards data elements relationship to application data elements.

Max Use

Specifies the maximum number of times a segment can be used at the location in a transaction set.

Message

Entire data stream including the outer envelope.

NACHA

National Automated Clearing House Association

Optional(O)

A data element/segment requirement designator which indicates the presence of a specified data element/segment is at the option of the sending party which can be based on the mutual agreement of the interchange parties.

PIDX

Petroleum Industry Data Exchange

Proprietary Format

A data format specific to a company, industry, or other limited group. Proprietary formats do not comply with the ASC X12 series of standards.

Qualifier

A data element which identifies or defines a related element, set of elements, or a segment. The qualifier contains a code taken from a list of approved codes.

Rapporteur

An individual expert appointed by the United Nations for specific objectives.

Repeating Segment

A segment that may be used more than once at a given location in a transaction set. See Max Use.

Security

System screening which denies access to unauthorized users and protects data from unauthorized uses.

Segment

A data segment is the intermediate unit of information in a transaction set. Data segments consist of logically related data elements in a defined sequence. Data segments have a predefined data segment identifier that comprises the first characters of the data segment. When data segments are combined to form a transaction set, their relationship to the transaction set is defined by a data segment requirement designator and a data segment sequence. Some data segments may be repeated, and groups of segments may be repeated as loops.

Segment Directory (X12.22)

Provides the purposes and formats of the segments used in the construction of transaction sets. The directory lists each segment by name, purpose, identifier, the contained data elements in the specified order, and the requirement designator for each data element.

Segment Identifier

A unique identifier for a segment composed of a combination of two or three uppercase letters and digits. The segment identifier occupies the first character positions of the segment. The segment identifier is not a data element. The segment identifier in EDIFACT is a component data element—part of a composite data element consisting of a segment identifier and an explicit looping designator.

Segment Terminator

A unique character appearing at the end of a segment to indicate the termination of the segment.

Sub Element Separator

A unique character used to delimit the component data elements within a composite data element.

Syntax

The grammar or rules which define the structure of the EDI standards (i.e., the use of loops, qualifier, etc). Syntax rules are published in ANSI X12.6.

Trading partner

The sending and/or receiving party involved in the exchange of electronic data interchange transmissions.

Transaction Set

A transaction set is composed of the specific group of data segments that represent a common business document - for example, an invoice. A transaction set is the collection of data that is exchanged in order to convey meaning between parties engaged in electronic data interchange. Each transaction set starts with a transaction set header and is immediately followed by a beginning data segment unique to that type of transaction set. The transaction set is terminated (ended) by a transaction set trailer.

Transaction Set Identifier

The transaction set identifier defines the type of transaction set. This identifier is the first data element of the transaction set header segment. This identifier is unique for each type of transaction set.

Translation

The act of accepting documents in other than X12 standard format and translating them to the X12 standard format.

UCC

Uniform Code Council

UCS

Uniform Communication Standard

UIG

Utilities Industry Group

VAN

Value Added Network. Third party communications service organizations.

Version/Release

Identifies the publication of the standard being used for the generation or the interpretation of data in the X12 standard format. May be found in the Functional Group Header Segment (GS) and in the Interchange Control Header Segment (ISA). See Control Segment.

VICS Committee

Voluntary Interindustry Communications Standards for Electronic Data Interchange.

WINS

Warehouse Industry National Standards guidelines

Working Interest Owner

An individual or entity who shares in the ownership of a property with at least one other individual or entity.

X12

The ANSI committee responsible for the development and maintenance of standards for Electronic Data Interchange (EDI).

X12.5

Interchange Control Structure. This standard provides the interchange envelope of a header and trailer for the electronic interchange through a data transmission, and it provides a structure to acknowledge the receipt and processing of this envelope. Separate segments and data elements not in X12.22 or X12.3.

X12.6

Application Control Structure. This standard describes the control segments used to envelop loops of data segments, to envelop transaction sets, and to envelop groups of related transaction sets.

9.0 FORMS AND DOCUMENTS

9.1 X12 Forms

Changes to transaction sets should be submitted to the PIDX User Group supporting the transaction set. After review by the User Group, the changes should be sent to the API EDI Technical Support Staff and User Group Liaison Representative on the Standards Sub-Committee for review. The changes will be reviewed for clarity and accuracy prior to being forwarded to ASC X12 via DISA and the Standards Sub Committee. The API EDI Technical Support Staff and/or the Technical Review Task Group will contact the User Group submitting the change request with any questions. Change requests should be submitted on the ASC X12 WORK REQUEST FORM (Copy follows this section).

The work request process is as follows:

- ASC X12 Work Request Form is completed by the user
- Forward to User Group for review
- User Group forwards to API EDI Technical Support Staff
- Change Request is reviewed for clarity and accuracy
- Questions directed to the User Group
- Completed change request forwarded to ASC X12 (DISA) and the Standards and Maintenance Committee
- User Liaison representative on the Standards and Maintenance Committee and additional Standards Sub-Committee representatives support the change request at the ASC X12 committee meetings
- Questions directed by any ASC X12 Committee not resolved will be referred back to the User Group

All sections of the WORK REQUEST FORM must be completed. A complete explanation of the business need (Section C. Reason for Change) is critical if the change is to be approved by ASC X12.

Any request for changes involving new data elements or data element codes which reference a code list published by an external (non-X12) organization requires the submission of ASC X12 FORM FOR NEW OR REVISED APPENDIX A REFERENCE with the WORK REQUEST FORM.

9.2 X12 Documents

The various X12 documents are not included in this section. Copies of documents such as those noted below can be purchased from Washington Publishing Company, the distributor approved by the Data Interchange Standards Association (DISA).

X12 Standards (Draft Standards and Approved Standards)

The latest and prior version/release containing all approved or draft standards of Transaction Sets plus segment Directory (X12.22), Data Element Dictionary (X12.3) and Code Sources. The X12 Standards publication will normally contain the Interchange Control Structure (X12.5) and Application Control Structure (X12.6).

X12.5 Interchange Control Structure

Defines control structures for the electronic interchange of business transactions. Provides the interchange envelope of a header and trailer for the electronic interchange through a data transmission and a structure to acknowledge the receipt and processing of this envelope.

X12.6 Application Control Structure

Defines the basic structure, content and syntax of business transactions for computer to computer interchange.

10.0 INDUSTRY CONVENTIONS FOR ASC X12 TRANSACTION SETS

10.1 Introduction

Understanding Standards, Conventions and Guidelines

The PIDX Implementation Guide uses the terms standards, conventions, and guidelines and the following definitions are provided to assist the reader in understanding the difference between the terms:

- **Standards**

Standards are the technical documentation approved by ASC X12, specifically Transaction Sets, Segments, Data Elements, Code sets and Interchange Control Structure. Standards define what is included in each ASC X12 standard.

- **Conventions**

Conventions are the common practices and/or interpretations of the use of ASC X12 standards, complying with the standards as agreed upon by two or more trading partners. Conventions define what is included in a specific implementation of an ASC X12 standard.

- **Guidelines**

Guidelines are instructions on the use of EDI and additional information to conduct EDI. Guidelines are intended to provide assistance on how to implement EDI.

Transaction Set Segment Hierarchy

The Application Control Structure, ANSI X12.6 contains the formal definitions of all terms related to EDI. The following terms and definitions used in the Transaction Set Segment Hierarchy are consistent with those formal definitions:

- **Segment Identifier (Seg ID)**

Each segment has a unique identifier composed of a combination of one uppercase letter and one or two uppercase letter(s) and/or digit(s). The identifier serves as a name for the segment and occupies the first character positions of the segment. The segment identifier is not a data element.

- **Segment Name (Name)**

The name of the segment as defined in the ASC X12 standards.

- **Segment Requirement Designator (Req Des)**

This column identifies the usage of this segment within this transaction according to the ASC X12 standards. Segments designated as Mandatory or Required must appear within the transaction set, while all other requirement designations need not appear within the transaction set if unused.

The Transaction Set Segment Hierarchy shows which segments may be used in a transaction set and their proper sequence within the transaction set. Segments may not appear in any other sequence without violating the compliance rules of the ASC X12 syntax.

- **Maximum Use of Segments (Use)**

This column identifies how many times a particular segment may be repeated at its location in the transaction set. Rather than a stated maximum number of times, Max Use in several of the newer transaction sets is defined in terms of “one or more than one” occurrence.

- **Loops of Segments (Loop)**

Loops identify how a specified group of segments may repeat within a transaction set. Loops may be nested, but may not be crossed.

Industry Model

The model is the industry’s actual transaction set. This permits readers to visualize the actual content of an implemented transaction set.

Terms and Definitions

- **Page Number**

Page number refers the reader to the corresponding page within this version of this transaction set convention for further information about the particular segment.

- **Maximum Use of Segments (Use)**

An industry may choose to set a lower maximum use than the max use defined by the ASC X12 standard, but may not define a higher max use.

Segment Directory

FORMAT

As in the other chapters of this document, chapter 10 maintains the 33/67 split of the physical page. However, there are several connotations of this split within chapter 10.

When transaction sets are presented in chapter 10, the actual ASC X12 standard as it appears in the official X12 standards manual is presented on the right-hand side of the page. This also includes both the syntax notes and comments. The specific industry usage designators and notes appear after the last data element of the segment. Industry usage is always specified whether it is identical to or a variation from the usage specified by the standard.

A segment directory contains the definitions and formats used by the industry in the construction of each particular transaction set. This segment by segment description permits the reader to examine the specific usage of each data element and segment in the transaction set.

Terms and Definitions

- **Level**

The level identifies if the segment is used at the Header, Detail or Summary level of the transaction.

- **Segment Requirement Designator (Req Des)**

The following definitions are for use in interpreting the requirement des-

ignators in the industry specific Segment Directory section of the guideline.

- **Mandatory**

This segment is mandatory as defined by ASC X12.

- **Not Commonly Used**

This segment is not commonly used by the industry, but may be used at the option of the trading partners.

- **Optional**

This segment is used at the option of the trading partners.

- **Required**

This segment is considered optional under ASC X12 rules, but is required by industry decision.

- **Recommended**

This segment is considered optional both under ASC X12 rules and by the industry, but is recommended by the industry to facilitate EDI. It is anticipated that most companies in the industry will use this segment.

- **Data Element Requirement Designator**

The following definitions are for use in interpreting the requirement designators in the industry specific Segment Directory section of the guideline. For ASC X12 usage, see the definitions in X12.6 Application Control Structure.

- **Mandatory**

This data element is mandatory as defined by ASC X12.

- **Optional**

This data element is used at the option of the sending party or is based upon the mutual agreement of trading partners.

- **Required**

This data element is considered optional under ASC X12 rules, but is required by industry decision.

- **Recommended**

This data element is considered optional both under ASC X12 rules and by the industry, but its use is recommended by the industry to facilitate EDI. It is anticipated that most companies in the industry will use this data element.

- **Not Used**

This data element is not used by the industry. However, this does not guarantee that a specific trading partner will not utilize it.

- **Conditional**

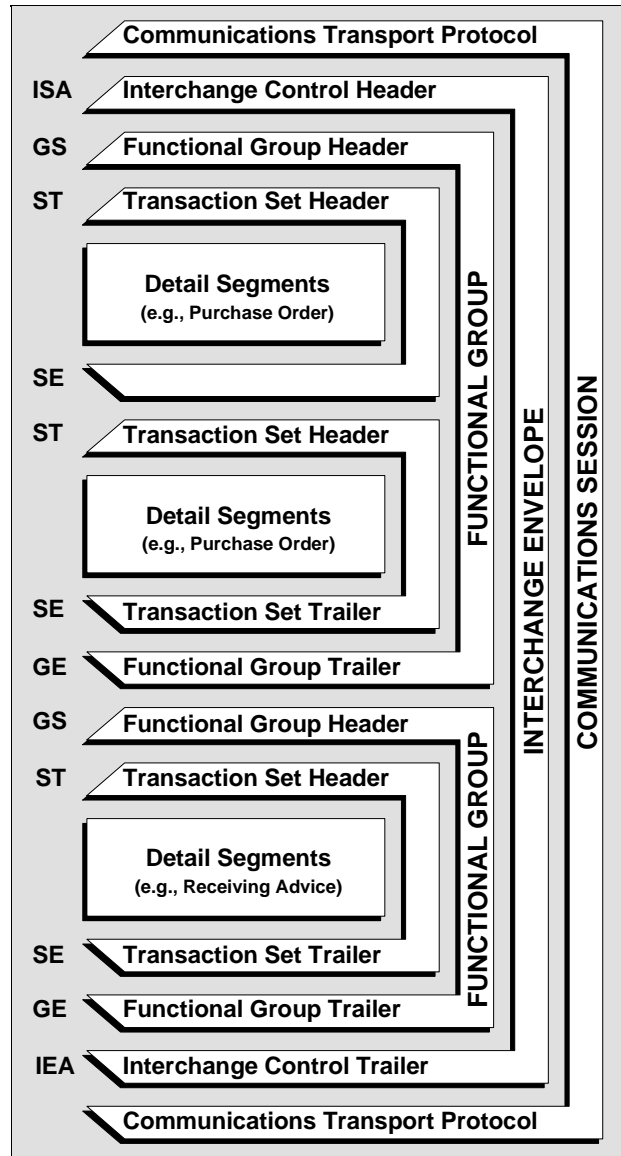
The presence of this data element is dependent on the value or presence of other data elements in the transaction set.

10.2 Control Segments

To allow transaction sets of different types to be transmitted from one party to another in the same transmission, a hierarchical structure of headers and trailers allows the data to be segregated logically for easy interpretation by the receiver.

Transaction sets begin with an “ST” header and end with an “SE” trailer. Several transaction sets of the same type may be “functionally grouped” together by beginning such a group with a “GS” header and ending the group with a “GE” trailer. One or more functional groups are bound together for transmission within an interchange “envelope” made up of an “ISA” header and an “IEA” trailer.

The structures of the transaction set and functional group headers and trailers are found in the Segment Directory. The structures of the interchange control header and trailer are found in the Interchange Control Structure standard (dpANS X12.5 - 1989).



The schematic illustrates a typical format for electronically transmitting a series of diverse business transactions.

ASC X12

867 Product Transfer and Resale Report

FUNCTIONAL GROUP ID = **PT**

This Draft Standard for Trial Use contains the format and establishes the data contents of the Product Transfer and Resale Report Transaction Set (867) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to: (1) report information about product that has been transferred from one location to another; (2) report sales of product from one or more locations to an end customer; or (3) report sales of a product from one or more locations to an end customer, and demand beyond actual sales (lost orders). Report may be issued by either buyer or seller.

Header

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
11	010	ST	Transaction Set Header	M	1	
12	020	BPT	Beginning Segment for Product Transfer and Resale	M	1	
N/U	040	CUR	Currency	O	1	
14	050	DTM	Date/Time Reference	O	10	
15	060	REF	Reference Identification	O	12	
16	070	PER	Administrative Communications Contact	O	3	
17	075	MEA	Measurements	O	20	
20	078	PSA	Partner Share Accounting	O	10	
LOOP ID - N1						5
21	080	N1	Name	O	1	
N/U	090	N2	Additional Name Information	O	2	
N/U	100	N3	Address Information	O	2	
N/U	110	N4	Geographic Location	O	1	
N/U	120	REF	Reference Identification	O	12	
LOOP ID - N1/PER						>1
N/U	130	PER	Administrative Communications Contact	O	1	
N/U	135	REF	Reference Identification	O	>1	
LOOP ID - LM						>1
N/U	140	LM	Code Source Information	O	1	
N/U	150	LQ	Industry Code	M	100	

Detail

PAGE #	POS. #	SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
		LOOP ID - PTD				>1
22	010	PTD	Product Transfer and Resale Detail	M	1	
N/U	020	DTM	Date/Time Reference	O	10	
23	030	REF	Reference Identification	O	20	
N/U	035	PRF	Purchase Order Reference	O	1	
N/U	040	PER	Administrative Communications Contact	O	3	
N/U	045	MAN	Marks and Numbers	O	1	
		LOOP ID - PTD/N1				5
N/U	050	N1	Name	O	1	
N/U	060	N2	Additional Name Information	O	2	
N/U	070	N3	Address Information	O	2	
N/U	080	N4	Geographic Location	O	1	
N/U	090	REF	Reference Identification	O	20	
N/U	100	PER	Administrative Communications Contact	O	3	
		LOOP ID - PTD/N1/SII				>1
N/U	105	SII	Sales Item Information	O	1	
N/U	107	N9	Reference Identification	O	1	
		LOOP ID - PTD/PTY				>1
24	110	PTY	Quantity	O	1	
N/U	120	LIN	Item Identification	O	1	
N/U	122	PO3	Additional Item Detail	O	25	
N/U	125	PO4	Item Physical Details	O	1	
26	130	UIT	Unit Detail	O	12	
28	140	AMT	Monetary Amount	O	12	
29	141	ITA	Allowance, Charge or Service	O	10	
31	150	PID	Product/Item Description	O	200	
33	160	MEA	Measurements	O	40	
N/U	170	PWK	Paperwork	O	25	
N/U	180	PKG	Marking, Packaging, Loading	O	25	
N/U	190	REF	Reference Identification	O	>1	
N/U	200	PER	Administrative Communications Contact	O	3	
N/U	210	DTM	Date/Time Reference	O	10	
N/U	220	CUR	Currency	O	1	
N/U	230	AT	Financial Accounting	O	>1	
N/U	240	DD	Demand Detail	O	1	
N/U	250	LDT	Lead Time	O	1	
		LOOP ID - PTD/PTY/LM				>1
N/U	260	LM	Code Source Information	O	1	
N/U	270	LQ	Industry Code	O	100	
		LOOP ID - PTD/PTY/LX				>1
N/U	280	LX	Assigned Number	O	1	
N/U	290	REF	Reference Identification	O	>1	
N/U	300	DTM	Date/Time Reference	O	1	
N/U	310	N1	Name	O	1	
		LOOP ID - PTD/PTY/LX/LM				>1
N/U	320	LM	Code Source Information	O	1	
N/U	330	LQ	Industry Code	M	100	

Summary

PAGE # POS. #

36 010
37 020
38 021
40 030

SEG. ID	NAME	REQ. DES.	MAX USE	LOOP REPEAT
LOOP ID - CTT				1
CTT	Transaction Totals	O	1	
AMT	Monetary Amount	O	12	
ITA	Allowance, Charge or Service	O	10	
SE	Transaction Set Trailer	M	1	

Transaction Set Notes:

2/280 The LX loop conveys serial number, lot number, and inventory data.

3/010 The number of line items (CTT01) is the accumulation of the number of LIN segments. If used, hash total (CTT02) is the sum of the value of quantities (QTY02) for each QTY segment.

Segment: ST Transaction Set Header

Level: Header

Loop: ____

Usage: Mandatory

Max Use: 1

Purpose: To indicate the start of a transaction set and to assign a control number

Semantic: 1 The transaction set identifier (ST01) used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 867 X12.33 Product Transfer and Resale Report	M ID 3/3
ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set The number is sequentially assigned by the sender, starting with one within each functional group. For each functional group, the first transaction set control number will be 0001 and incremental by one each additional transaction set within the group.	M AN 4/9

Segment: **BPT** Beginning Segment for Product Transfer and Resale
Level: Header
Loop: ___
Usage: Mandatory
Max Use: 1
Purpose: To indicate the beginning of the Product Transfer and Resale Report Transaction Set and transmit identifying data
Syntax: 1 **P0506**
 If either BPT05 or BPT06 is present, then the other is required.
Semantic: 1 BPT02 identifies the transfer/resale number.
 2 BPT03 identifies the transfer/resale date.
 3 BPT08 identifies the transfer/resale time.
 4 BPT09 is used when it is necessary to reference a Previous Report Number.

Notes: To indicate the beginning of the Lease Settlement Statement transaction set and transmit identifying numbers and dates.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
➤	BPT01	353 Transaction Set Purpose Code Code identifying purpose of transaction set 00 Original 03 Delete 05 Replace 25 Incremental	M	ID	2/2
➤	BPT02	127 Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier GRADE recommends using this data field to relay the property identification assigned by the preparing company.	O	AN	1/30
➤	BPT03	373 Date Date (YYMMDD) Use this data field to relay the production month and year of the data being transmitted using the format YYMMDD.	M	DT	6/6
➤	BPT04	755 Report Type Code Code indicating the title or contents of a document, report or supporting item LS Lease Settlement Statement ANSI Definition Required	O	ID	2/2
	BPT05	648 Price Multiplier Qualifier Code indicating the type of price multiplier NOT USED	C	ID	3/3
	BPT06	649 Multiplier Value to be used as a multiplier to obtain a new value NOT USED	C	R	1/10
	BPT07	306 Action Code Code indicating type of action NOT USED	O	ID	1/2
	BPT08	337 Time Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) NOT USED	O	TM	4/8

BPT09	127	Reference Identification	O AN 1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
		NOT USED	
BPT10	786	Security Level Code	O ID 2/2
		Code indicating the level of confidentiality assigned by the sender to the information following	
		NOT USED	

Segment: DTM Date/Time Reference

Level: Header

Loop: ___

Usage: Optional

Max Use: 10

Purpose: To specify pertinent dates and times

Syntax: 1 R020306

At least one of DTM02, DTM03 or DTM06 is required.

2 P0607

If either DTM06 or DTM07 is present, then the other is required.

Notes: This DTM segment is used to specify dates for the last chromatograph sample and the last BTU sample.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time 817 Gallons Per Minute (GPM) Test Performed 818 British Thermal Unit (BTU) Test Performed	M ID 3/3
DTM02	373	Date Date (YYMMDD) Use this data field to relay the date the sample was taken using the format YYMMDD.	C DT 6/6
DTM03	337	Time Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) NOT USED	C TM 4/8
DTM04	623	Time Code Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow NOT USED	O ID 2/2
DTM05	624	Century The first two characters in the designation of the year (CCYY) NOT USED	O NO 2/2
DTM06	1250	Date Time Period Format Qualifier Code indicating the date format, time format, or date and time format NOT USED	C ID 2/3
DTM07	1251	Date Time Period Expression of a date, a time, or range of dates, times or dates and times NOT USED	C AN 1/35

Segment: **REF** Reference Identification
Level: Header
Loop: ___
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax: 1 **R0203**
 At least one of REF02 or REF03 is required.
Semantic: 1 REF04 contains data relating to the value cited in REF02.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	Reference Identification Qualifier Code Qualifying the Reference Identification	M ID 2/3
		CT Contract Number	
		TD Reason for Change	
		Use this data field to qualify the Adjustment Reason Code.	
		YJ Revenue Source	
		REQUIRED FOR USE	
		Use of this code value is mandatory to specify the reporting level of the transaction.	
		YP Selling Arrangement	
		REQUIRED FOR USE	
		Use of this code value is mandatory to specify settlement level of the transaction.	
REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	C AN 1/30
		The Adjustment Reason Code List is available from:	
		Values recommended for Heat Code:	
		1 Wet	
		2 Dry	
		3 As Delivered	
		Values recommended for Reporting Level:	
		1 Well	
		2 Meter	
		3 Lease	
		4 Plant	
		5 Unit	
		6 Tract	
		Values recommended for Settlement Level:	
		1 100%	
		2 GWI Percent	
		3 Royalty Percent	
		4 NWI Percent	
REF03	352	Description A free-form description to clarify the related data elements and their content	C AN 1/80
		NOT USED	
REF04	C040	REFERENCE NUMBER To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier	O COMPOSITE
		NOT USED	

Segment: PER Administrative Communications Contact

Level: Header

Loop: ___

Usage: Optional

Max Use: 3

Purpose: To identify a person or office to whom administrative communications should be directed

- Syntax:**
- 1 P0304**
If either PER03 or PER04 is present, then the other is required.
 - 2 P0506**
If either PER05 or PER06 is present, then the other is required.
 - 3 P0708**
If either PER07 or PER08 is present, then the other is required.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
PER01	366	Contact Function Code Code identifying the major duty or responsibility of the person or group named IC Information Contact	M ID 2/2
PER02	93	Name Free-form name	O AN 1/35
PER03	365	Communication Number Qualifier Code identifying the type of communication number ED Electronic Data Interchange Access Number EM Electronic Mail FX Facsimile MN Modem Number	C ID 2/2
PER04	364	Communication Number Complete communications number including country or area code when applicable The communications number should be formatted using no commas or parenthesis, e.g., 2025551212.	C AN 1/80
PER05	365	Communication Number Qualifier Code identifying the type of communication number See PER03 for applicable code values.	C ID 2/2
PER06	364	Communication Number Complete communications number including country or area code when applicable The communications number should be formatted using no commas or parenthesis, e.g., 2025551212.	C AN 1/80
PER07	365	Communication Number Qualifier Code identifying the type of communication number See PER03 for applicable code values.	C ID 2/2
PER08	364	Communication Number Complete communications number including country or area code when applicable The communications number should be formatted using no commas or parenthesis, e.g., 2025551212.	C AN 1/80
PER09	443	Contact Inquiry Reference Additional reference number or description to clarify a contact number NOT USED	O AN 1/20

Segment: **MEA** Measurements
Level: Header
Loop: ___
Usage: Optional
Max Use: 20
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

(See Figures Appendix for example of use of C001)

- Syntax:**
- 1 R03050608**
At least one of MEA03, MEA05, MEA06 or MEA08 is required.
 - 2 C0504**
If MEA05 is present, then MEA04 is required.
 - 3 C0604**
If MEA06 is present, then MEA04 is required.
 - 4 L07030506**
If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.
 - 5 E0803**
Only one of MEA08 or MEA03 may be present.

Semantic: **1** MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments: **A** When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes: Use this MEA segment at the header level to specify measurements, including theoretical, heat content, factors and percents that apply to the entire transaction set.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
MEA01	737	Measurement Reference ID Code Code identifying the broad category to which a measurement applies NOT USED	O ID 2/2
MEA02	738	Measurement Qualifier Code identifying a specific product or process characteristic to which a measurement applies NP Percent of Specified Use of this code value is mandatory when reporting BTU volume. PU Pressure Base	O ID 1/3
MEA03	739	Measurement Value The value of the measurement Value for Pressure Base 1 14.65 2 14.73 3 15.025 Value format for Percentage Due at Lease is X.XXX	C R 1/20
MEA04	C001	COMPOSITE UNIT OF MEASURE To identify a composite unit of measure (See Figures Appendix for examples of use.)	C COMPOSITE
- 1	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken BY British Thermal Unit (BTU)	M ID 2/2

		GW Gallons Per Thousand Cubic Feet		
- 2	1018	Exponent Power to which a unit is raised	O R	1/15
NOT USED				
- 3	649	Multiplier Value to be used as a multiplier to obtain a new value	O R	1/10
NOT USED				
- 4	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID	2/2
NOT USED				
- 5	1018	Exponent Power to which a unit is raised	O R	1/15
NOT USED				
- 6	649	Multiplier Value to be used as a multiplier to obtain a new value	O R	1/10
NOT USED				
- 7	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID	2/2
NOT USED				
- 8	1018	Exponent Power to which a unit is raised	O R	1/15
NOT USED				
- 9	649	Multiplier Value to be used as a multiplier to obtain a new value	O R	1/10
NOT USED				
- 10	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID	2/2
NOT USED				
- 11	1018	Exponent Power to which a unit is raised	O R	1/15
NOT USED				
- 12	649	Multiplier Value to be used as a multiplier to obtain a new value	O R	1/10
NOT USED				
- 13	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID	2/2
NOT USED				
- 14	1018	Exponent Power to which a unit is raised	O R	1/15
NOT USED				
- 15	649	Multiplier Value to be used as a multiplier to obtain a new value	O R	1/10
NOT USED				
MEA05	740	Range Minimum The value specifying the minimum of the measurement range	C R	1/20

NOT
USED

MEA06	741	Range Maximum The value specifying the maximum of the measurement range	C	R	1/20
NOT USED					
MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O	ID	2/2
NOT USED					
MEA08	936	Measurement Attribute Code Code used to express an attribute response when a numeric measurement value cannot be determined	C	ID	2/2
NOT USED					
MEA09	752	Surface/Layer/Position Code Code indicating the product surface, layer or position that is being described	O	ID	2/2
NOT USED					
MEA10	1373	Measurement Method or Device The method or device used to record the measurement	O	ID	2/4
NOT USED					

Segment: PSA Partner Share Accounting

Level: Header

Loop: ___

Usage: Optional

Max Use: 10

Purpose: To communicate the percentage share of the project that a particular owner has to pay

Comments: A PSA03 is expressed as a decimal amount.

Notes: The PSA segment is used to indicate interest owner percent.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
PSA01	66	Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 32 Assigned by Property Operator	M ID 1/2
PSA02	67	Identification Code Code identifying a party or other code Use this data field to relay the Owner Code.	M AN 2/20
PSA03	826	Owners Share To indicate owner's share of the property Use this data field to relay the owner's percentage share.	M R 1/8
PSA04	782	Monetary Amount Monetary amount NOT USED	O R 1/15

Segment: **N1 Name**
Level: Header
Loop: N1 **Usage:** Optional **Max Use:** 5
Usage: Mandatory
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax: 1 **R0203**
 At least one of N102 or N103 is required.
 2 **P0304**
 If either N103 or N104 is present, then the other is required.
Comments: A This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
 B N105 and N106 further define the type of entity in N101.

Usage Note: **REQUIRED FOR USE**

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
N101	98	Entity Identifier Code Code identifying an organizational entity, a physical location, or an individual FR Message From Use this code value to identify the sending company. RE Party to receive commercial invoice remittance	M ID 2/2
N102	93	Name Free-form name	C AN 1/35
N103	66	Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	C ID 1/2
N104	67	Identification Code Code identifying a party or other code	C AN 2/20
N105	706	Entity Relationship Code Code describing entity relationship NOT USED	O ID 2/2
N106	98	Entity Identifier Code Code identifying an organizational entity, a physical location, or an individual NOT USED	O ID 2/2

Segment: PTD Product Transfer and Resale Detail

Level: Detail

Loop: PTD **Usage:** Mandatory **Max Use:** >1

Usage: Mandatory

Max Use: 1

Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data

Syntax: 1 **P0203**
If either PTD02 or PTD03 is present, then the other is required.

2 **P0405**
If either PTD04 or PTD05 is present, then the other is required.

Notes: The PTD segment is used to indicate the start of detail information relating to the hydrocarbon components of natural gas.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
PTD01	521	Product Transfer Type Code Code identifying the type of product transfer PL Property Level Movement/Sale	M	ID	2/2
PTD02	648	Price Multiplier Qualifier Code indicating the type of price multiplier NOT USED	C	ID	3/3
PTD03	649	Multiplier Value to be used as a multiplier to obtain a new value NOT USED	C	R	1/10
PTD04	128	Reference Identification Qualifier Code Qualifying the Reference Identification NOT USED	C	ID	2/3
PTD05	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier NOT USED	C	AN	1/30
PTD06	486	Product Transfer Movement Type Code To indicate the type of product transfer movement NOT USED	O	ID	2/2

Segment: **REF** Reference Identification

Level: Detail

Loop: PTD

Usage: Optional

Max Use: 20

Purpose: To specify identifying information

Syntax: 1 **R0203**
 At least one of REF02 or REF03 is required.

Semantic: 1 REF04 contains data relating to the value cited in REF02.

Notes: The REF segment is used to specify price category of gas included in the transaction.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
REF01	128	Reference Identification Qualifier Code Qualifying the Reference Identification NG Natural Gas Policy Act Category Code See External Code Source 122 in Appendix B for reference document.	M ID 2/3
REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Refer to Appendix for NGPA Category Code Source information.	C AN 1/30
REF03	352	Description A free-form description to clarify the related data elements and their content NOT USED	C AN 1/80
REF04	C040	REFERENCE NUMBER To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier NOT USED	O COMPOSITE

Segment: QTY Quantity
Level: Detail
Loop: PTD/QTY **Usage:** Optional **Max Use:** >1
Usage: Mandatory
Max Use: 1
Purpose: To specify quantity information

Usage Note: REQUIRED FOR USE

Notes: The QTY segment is used to indicate the start of a QTY loop for natural gas data. A minimum of one iteration of the QTY loop is required.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
QTY01	673	Quantity Qualifier Code specifying the type of quantity	M	ID	2/2
		28 Quantity Available for Return			
		Lease Fuel			
		32 Quantity Sold			
		33 Quantity Available for Sale (stock quantity)			
		76 Returns			
		Quantity Returned To Lease			
		87 Quantity Received			
		Gas Volume Received By Plant			
		F1 Off Lease Fuel			
		FC Fuel Consumed or Burned Amount			
		FF Flare or Flash			
		GI Gas Injection Volume			
		GL Gas Lift Volume			
		GV Gas Volume			
		Quantity Produced			
		LG Loss or Gain			
		TH Theoretical Quantity			
		VA Volume Shrinkage Adjustment or Allowance			
QTY02	380	Quantity Numeric value of quantity	M	R	1/15
QTY03	C001	COMPOSITE UNIT OF MEASURE To identify a composite unit of measure	O	COMPOSITE	
		(See Figures Appendix for examples of use.)			
- 1	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	M	ID	2/2
		BR Barrel			
		BZ Million BTU's			
		FC 1000 Cubic Feet			
		GA Gallon			
		LG Long Ton			
- 2	1018	Exponent Power to which a unit is raised	O	R	1/15
		NOT USED			
- 3	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
		NOT USED			

- 4	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
NOT USED					
- 5	1018	Exponent Power to which a unit is raised	O	R	1/15
NOT USED					
- 6	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
NOT USED					
- 7	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
NOT USED					
- 8	1018	Exponent Power to which a unit is raised	O	R	1/15
NOT USED					
- 9	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
NOT USED					
- 10	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
NOT USED					
- 11	1018	Exponent Power to which a unit is raised	O	R	1/15
NOT USED					
- 12	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
NOT USED					
- 13	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
NOT USED					
- 14	1018	Exponent Power to which a unit is raised	O	R	1/15
NOT USED					
- 15	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
NOT USED					

Segment: UIT Unit Detail

Level: Detail

Loop: PTD/QTY

Usage: Optional

Max Use: 12

Purpose: To specify item unit data

Syntax: 1 C0302

If UIT03 is present, then UIT02 is required.

Notes: The UIT segment is used to specify hydrocarbon component unit data.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
UIT01	C001	COMPOSITE UNIT OF MEASURE To identify a composite unit of measure	M COMPOSITE
		(See Figures Appendix for examples of use.)	
- 1	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	M ID 2/2
		BR Barrel	
		BZ Million BTU's	
		FC 1000 Cubic Feet	
		GA Gallon	
		LG Long Ton	
- 2	1018	Exponent Power to which a unit is raised	O R 1/15
		NOT USED	
- 3	649	Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
		NOT USED	
- 4	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
		NOT USED	
- 5	1018	Exponent Power to which a unit is raised	O R 1/15
		NOT USED	
- 6	649	Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
		NOT USED	
- 7	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2
		NOT USED	
- 8	1018	Exponent Power to which a unit is raised	O R 1/15
		NOT USED	
- 9	649	Multiplier Value to be used as a multiplier to obtain a new value	O R 1/10
		NOT USED	
- 10	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O ID 2/2

			NOT USED			
- 11	1018	Exponent		O	R	1/15
		Power to which a unit is raised				
			NOT USED			
- 12	649	Multiplier		O	R	1/10
		Value to be used as a multiplier to obtain a new value				
			NOT USED			
- 13	355	Unit or Basis for Measurement Code		O	ID	2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken				
			NOT USED			
- 14	1018	Exponent		O	R	1/15
		Power to which a unit is raised				
			NOT USED			
- 15	649	Multiplier		O	R	1/10
		Value to be used as a multiplier to obtain a new value				
			NOT USED			
UIT02	212	Unit Price		C	R	1/17
		Price per unit of product, service, commodity, etc.				
UIT03	639	Basis of Unit Price Code		O	ID	2/2
		Code identifying the type of unit price for an item				
			NOT USED			

Segment: **AMT** Monetary Amount
Level: Detail
Loop: PTD/QTY
Usage: Optional
Max Use: 12
Purpose: To indicate the total monetary amount

Usage Note: **REQUIRED FOR USE**

Notes: **To indicate monetary amount of each hydrocarbon component sold.**

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
AMT01	522	Amount Qualifier Code Code to qualify amount 1 Line Item Total	M	ID	1/2
AMT02	782	Monetary Amount Monetary amount	M	R	1/15
AMT03	478	Credit/Debit Flag Code Code indicating whether amount is a credit or debit	O	ID	1/1
NOT USED					

Segment: **ITA** Allowance, Charge or Service
Level: Detail
Loop: PTD/QTY
Usage: Optional
Max Use: 10
Purpose: To specify allowances, charges, or services
Syntax: **1 L02031314**
 If ITA02 is present, then at least one of ITA03, ITA13 or ITA14 is required.
2 C0809
 If ITA08 is present, then ITA09 is required.
3 P1011
 If either ITA10 or ITA11 is present, then the other is required.
4 C1502
 If ITA15 is present, then ITA02 is required.
Semantic: **1** ITA09 is the allowance or charge percent.
2 ITA10 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
3 ITA12 is the quantity of free goods.
Comments: **A** If ITA01 equals "A" - allowance or "C" - charge, then at least one of ITA06, ITA07, or ITA08 must be present.
B ITA02 identifies the source of the code value in ITA03 or ITA15.
C If ITA07 is present with either ITA06 or ITA08, then ITA07 takes precedence.
D ITA13 is used to clarify the allowance, charge, or service.
E ITA15 specifies the individual code list of the agency specified in ITA02.
F ITA16 describes the relationship of ITA06, ITA07 or ITA09 to an associated segment.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
ITA01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified A Allowance C Charge	M ID 1/1
ITA02	559	Agency Qualifier Code Code identifying the agency assigning the code values NOT USED	C ID 2/2
ITA03	560	Special Services Code Code identifying the special service NOT USED	C ID 2/10
ITA04	331	Allowance or Charge Method of Handling Code Code indicating method of handling for an allowance or charge 06 Charge to be Paid by Customer 08 Off Gross Quantity Invoiced	M ID 2/2

ITA05	341	Allowance or Charge Number The number assigned by a vendor referencing an allowance, promotion, deal or charge	O	AN	1/16
<p>The following list of Allowance, Charge or Service Code values are applicable:</p> <ul style="list-style-type: none"> 041 Gas Quality Deducts 042 On Lease Marketing Costs 043 Off Lease Marketing Costs 044 Marketing Allowance 046 Keepwhole Value Added 051 Excess Royalty 052 Royalty 053 Overriding Royalty 054 Tax Reimbursement 					
ITA06	359	Allowance or Charge Rate Allowance or Charge Rate per Unit	O	R	1/15
NOT USED					
ITA07	360	Allowance or Charge Total Amount Total dollar amount for the allowance or charge	O	N2	1/15
ITA08	378	Allowance/ Charge Percent Qualifier Code indicating on what basis allowance or charge percent is calculated	O	ID	1/1
NOT USED					
ITA09	332	Percent Percent expressed as a percent	C	R	1/6
NOT USED					
ITA10	380	Quantity Numeric value of quantity	C	R	1/15
NOT USED					
ITA11	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	C	ID	2/2
NOT USED					
ITA12	380	Quantity Numeric value of quantity	O	R	1/15
NOT USED					
ITA13	352	Description A free-form description to clarify the related data elements and their content	C	AN	1/80
NOT USED					
ITA14	150	Special Charge or Allowance Code Code identifying type of special charge or allowance	C	ID	3/3
NOT USED					
ITA15	822	Source Subqualifier A reference that indicates the table or text maintained by the Source Qualifier	O	AN	1/15
NOT USED					
ITA16	662	Relationship Code Code indicating the relationship between entities	O	ID	1/1
NOT USED					

Segment: PID Product/Item Description

Level: Detail

Loop: PTD/QTY

Usage: Optional

Max Use: 200

Purpose: To describe a product or process in coded or free-form format

Syntax: 1 C0403
 If PID04 is present, then PID03 is required.

2 R0405
 At least one of PID04 or PID05 is required.

3 C0703
 If PID07 is present, then PID03 is required.

4 C0803
 If PID08 is present, then PID03 is required.

Semantic: 1 Use PID03 to indicate the organization that publishes the code list being referred to.

2 PID04 should be used for industry-specific product description codes.

3 PID08 describes the physical characteristics of the product identified in PID04. A "Y" indicates that the specified attribute applies to this item; an "N" indicates it does not apply. Any other value is indeterminate.

4 PID09 is used to identify the language being used in PID05.

Comments: A If PID01 equals "F", then PID05 is used. If PID01 equals "S", then PID04 is used. If PID01 equals "X", then both PID04 and PID05 are used.

B Use PID06 when necessary to refer to the product surface or layer being described in the segment.

C PID07 specifies the individual code list of the agency specified in PID03.

Notes: The PID segment is used to indicate the hydrocarbon components of natural gas.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
PID01	349	Item Description Type Code indicating the format of a description S Structured (From Industry Code List)	M	ID	1/1
PID02	750	Product/Process Characteristic Code Code identifying the general class of a product or process characteristic NOT USED	O	ID	2/3
PID03	559	Agency Qualifier Code Code identifying the agency assigning the code values AP American Petroleum Institute See External Code Source 261 in Appendix B for reference document. See External Code Source 401 in Appendix B for reference document.	C	ID	2/2

➤	PID04	751	Product Description Code	C AN 1/12
			A code from an industry code list which provides specific data about a product characteristic	
			See External Code Source 38 in Appendix B for reference document.	
			See External Code Source 113 in Appendix B for reference document.	
			See External Code Source 46 in Appendix B for reference document.	
			The following are Hydrocarbon Component Codes:	
			10 Nonprocessed Gas	
			11 Residue Gas	
			12 Condensate	
			13 Plant Condensate	
			20 Gas Of Undetermined Origin	
			21 Oil Well Gas	
			22 Gas Well Gas	
			30 LPG With No Determined Breakdown	
			31 Methane	
			32 Ethane	
			33 Propane	
			34 Butane	
			35 Isobutane	
			36 Gasoline (Pentane Plus)	
			37 26# Gasoline (C4 + C5)	
			38 Butane in 26# Gasoline	
			39 EPIN	
			40 Misc. Non-Hydrocarbons	
			41 Sulphur	
			42 Salt Water	
			43 Carbon Dioxide	
			44 Helium	
			45 Nitrogen	
			46 Inert Gas	
			50 Iso-Pentane	
			51 Normal Pentane	
			52 Hexane	
			53 Hexane Plus	
			54 Heptane	
			55 Heptane Plus	
			90 Undefined Products	
			91 Additional Products (Including Keepwhole)	
			92 Products Deducts (Including Impurities)	
			98 All Products (Including Methane)	
			99 All Liquid Products	
	PID05	352	Description	C AN 1/80
			A free-form description to clarify the related data elements and their content	
			NOT USED	
	PID06	752	Surface/Layer/Position Code	O ID 2/2
			Code indicating the product surface, layer or position that is being described	
			NOT USED	
	PID07	822	Source Subqualifier	O AN 1/15
			A reference that indicates the table or text maintained by the Source Qualifier	
			NOT USED	
	PID08	1073	Yes/No Condition or Response Code	O ID 1/1
			Code indicating a Yes or No condition or response	
			NOT USED	
	PID09	819	Language Code	O ID 2/3
			Code designating the language used in text, from a standard code list maintained by the International Standards Organization (ISO 639)	
			NOT USED	

Segment: MEA Measurements

Level: Detail

Loop: PTD/QTY

Usage: Optional

Max Use: 40

Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights

(See Figures Appendix for example of use of C001)

Syntax: 1 R03050608

At least one of MEA03, MEA05, MEA06 or MEA08 is required.

2 C0504

If MEA05 is present, then MEA04 is required.

3 C0604

If MEA06 is present, then MEA04 is required.

4 L07030506

If MEA07 is present, then at least one of MEA03, MEA05 or MEA06 is required.

5 E0803

Only one of MEA08 or MEA03 may be present.

Semantic: 1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

Comments: A When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes: The MEA segment is used to specify measurements, including physical and theoretical; heat content, factors, and percents.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
MEA01	737	Measurement Reference ID Code Code identifying the broad category to which a measurement applies TR Test Results	O ID 2/2
MEA02	738	Measurement Qualifier Code identifying a specific product or process characteristic to which a measurement applies NP Percent of Specified QA Quality Index Heating Factor ZBT N-Butane ZCD Carbon Dioxide ZET Ethane ZHS Hydrogen Sulfide ZIB I-Butane ZMT Methane ZPP Propane ZS Sulphur	O ID 1/3
MEA03	739	Measurement Value The value of the measurement The value format to relay the heating factor is X.XXX. The value format to relay the Percent Due at Lease is XX.XX. The value format to relay Gallons per 1000 Cubic Feet is XX.XXX.	C R 1/20

MEA04	C001	COMPOSITE UNIT OF MEASURE To identify a composite unit of measure	C	COMPOSITE	
		(See Figures Appendix for examples of use.)			
- 1	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	M	ID	2/2
- 2	1018	Exponent Power to which a unit is raised	O	R	1/15
- 3	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
- 4	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
- 5	1018	Exponent Power to which a unit is raised	O	R	1/15
- 6	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
- 7	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
- 8	1018	Exponent Power to which a unit is raised	O	R	1/15
- 9	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
- 10	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
- 11	1018	Exponent Power to which a unit is raised	O	R	1/15
- 12	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
- 13	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	O	ID	2/2
- 14	1018	Exponent Power to which a unit is raised	O	R	1/15
- 15	649	Multiplier Value to be used as a multiplier to obtain a new value	O	R	1/10
MEA05	740	Range Minimum The value specifying the minimum of the measurement range	C	R	1/20
		NOT USED			
MEA06	741	Range Maximum The value specifying the maximum of the measurement range	C	R	1/20
		NOT USED			
MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O	ID	2/2
		NOT USED			
MEA08	936	Measurement Attribute Code Code used to express an attribute response when a numeric measurement value cannot be determined	C	ID	2/2
		NOT USED			
MEA09	752	Surface/Layer/Position Code Code indicating the product surface, layer or position that is being described	O	ID	2/2
		NOT USED			

MEA10	1373	Measurement Method or Device The method or device used to record the measurement	O	ID	2/4
NOT USED					

Segment: CTT Transaction Totals

Level: Summary

Loop: CTT **Usage:** Optional **Max Use:** 1

Usage: Mandatory

Max Use: 1

Purpose: To transmit a hash total for a specific element in the transaction set

Syntax: 1 **P0304**
If either CTT03 or CTT04 is present, then the other is required.

2 **P0506**
If either CTT05 or CTT06 is present, then the other is required.

Comments: A This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
CTT01	354	Number of Line Items Total number of line items in the transaction set The number of PTD segments present in the transaction set.	M NO 1/6
CTT02	347	Hash Total Sum of values of the specified data element. All values in the data element will be summed without regard to decimal points (explicit or implicit) or signs. Truncation will occur on the left most digits if the sum is greater than the maximum size of the hash total of the data element. NOT USED	O R 1/10
CTT03	81	Weight Numeric value of weight NOT USED	C R 1/10
CTT04	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken NOT USED	C ID 2/2
CTT05	183	Volume Value of volumetric measure NOT USED	C R 1/8
CTT06	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken NOT USED	C ID 2/2
CTT07	352	Description A free-form description to clarify the related data elements and their content NOT USED	O AN 1/80

Segment: **AMT** Monetary Amount
Level: Summary
Loop: CTT
Usage: Optional
Max Use: 12
Purpose: To indicate the total monetary amount

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES		
AMT01	522	Amount Qualifier Code Code to qualify amount	M	ID	1/2
		NP Net to Pay Total Use this code value to relay the net value.			
		TP Total payment amount Use this data field to relay the Total/Gross Value.			
AMT02	782	Monetary Amount Monetary amount	M	R	1/15
AMT03	478	Credit/Debit Flag Code Code indicating whether amount is a credit or debit	O	ID	1/1
		NOT USED			

Segment: **ITA** Allowance, Charge or Service
Level: Summary
Loop: CTT
Usage: Optional
Max Use: 10
Purpose: To specify allowances, charges, or services
Syntax: 1 **L02031314**
 If ITA02 is present, then at least one of ITA03, ITA13 or ITA14 is required.
 2 **C0809**
 If ITA08 is present, then ITA09 is required.
 3 **P1011**
 If either ITA10 or ITA11 is present, then the other is required.
 4 **C1502**
 If ITA15 is present, then ITA02 is required.
Semantic: 1 ITA09 is the allowance or charge percent.
 2 ITA10 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity.
 3 ITA12 is the quantity of free goods.
Comments: A If ITA01 equals "A" - allowance or "C" - charge, then at least one of ITA06, ITA07, or ITA08 must be present.
 B ITA02 identifies the source of the code value in ITA03 or ITA15.
 C If ITA07 is present with either ITA06 or ITA08, then ITA07 takes precedence.
 D ITA13 is used to clarify the allowance, charge, or service.
 E ITA15 specifies the individual code list of the agency specified in ITA02.
 F ITA16 describes the relationship of ITA06, ITA07 or ITA09 to an associated segment.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
ITA01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified A Allowance C Charge	M ID 1/1
ITA02	559	Agency Qualifier Code Code identifying the agency assigning the code values NOT USED	C ID 2/2
ITA03	560	Special Services Code Code identifying the special service NOT USED	C ID 2/10
ITA04	331	Allowance or Charge Method of Handling Code Code indicating method of handling for an allowance or charge 06 Charge to be Paid by Customer 08 Off Gross Quantity Invoiced	M ID 2/2

ITA05	341	Allowance or Charge Number The number assigned by a vendor referencing an allowance, promotion, deal or charge	O	AN	1/16
<p>The following code values are applicable to the Allowance or Charge Number:</p> <ul style="list-style-type: none"> 041 Gas Quality Deducts 042 On Lease Marketing Cost 043 Off Lease Marketing Cost 044 Marketing Allowance 046 Keepwhole Value Added 051 Excess Royalty 052 Royalty 053 Overriding Royalty 054 Tax Reimbursement 061 Severance Tax CSR Conservation Tax AVA Ad Valorem Tax 340 Excise Tax 999 Other Tax 					
ITA06	359	Allowance or Charge Rate Allowance or Charge Rate per Unit	O	R	1/15
NOT USED					
ITA07	360	Allowance or Charge Total Amount Total dollar amount for the allowance or charge	O	N2	1/15
Use this data field to relay ALL or the CHARGE TOTAL amount.					
ITA08	378	Allowance/ Charge Percent Qualifier Code indicating on what basis allowance or charge percent is calculated	O	ID	1/1
NOT USED					
ITA09	332	Percent Percent expressed as a percent	C	R	1/6
NOT USED					
ITA10	380	Quantity Numeric value of quantity	C	R	1/15
NOT USED					
ITA11	355	Unit or Basis for Measurement Code Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	C	ID	2/2
NOT USED					
ITA12	380	Quantity Numeric value of quantity	O	R	1/15
NOT USED					
ITA13	352	Description A free-form description to clarify the related data elements and their content	C	AN	1/80
NOT USED					
ITA14	150	Special Charge or Allowance Code Code identifying type of special charge or allowance	C	ID	3/3
NOT USED					
ITA15	822	Source Subqualifier A reference that indicates the table or text maintained by the Source Qualifier	O	AN	1/15
NOT USED					
ITA16	662	Relationship Code Code indicating the relationship between entities	O	ID	1/1
NOT USED					

Segment: **SE** Transaction Set Trailer
Level: Summary
Loop: ____
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Comments: A SE is the last segment of each transaction set.

Data Element Summary

REF. DES.	DATA ELEMENT	NAME	ATTRIBUTES
SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M NO 1/10
SE02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9
SE02 must must equal the number in the ST segment (ST02) for the transaction set.			

**MODEL
ELECTRONIC DATA INTERCHANGE
TRADING PARTNER
AGREEMENT
AND
COMMENTARY**

**Prepared by
the**

Electronic Messaging Services Task Force

**Subcommittee on
Electronic Commercial Practices
Uniform Commercial Code Committee
Section of Business Law**

American Bar Association

**© 1990 American Bar Association.
All rights reserved. Reprinted with Permission**

FOREWORD

This Model Electronic Data Interchange Trading Partner Agreement and Commentary were prepared by the Electronic Messaging Services Task Force under the auspices of the Subcommittee on Electronic Commercial Practices of the Uniform Commercial Code Committee, Section of Business Law, of the American Bar Association.

The Model Agreement and Commentary are to be used by attorneys in advising clients who are establishing commercial trading practices which implement electronic data interchange ("EDI"). The format of the Model Agreement and Commentary is considered an appropriate manner in which to identify the issues arising in EDI and to suggest uniform approaches in response. However, it is not intended that the Model Agreement represent the only form in which those issues may be addressed by counsel considering the underlying business relationships. Those reviewing the Model Agreement and Commentary are strongly encouraged to consider and study their provisions and to use independent judgment as to the effectiveness of the provisions of the Model Agreement and the advisability of their use in particular transactions.

The Model Agreement and Commentary reflect the views of those involved in their preparation; neither the contents of the Model Agreement and Commentary, nor the opinions expressed therein, represent the views, in whole or in part, of the American Bar Association or any part thereof.

Background

Beginning in the early 1970's, EDI was introduced as a method by which business data could be communicated electronically between computers in standardized formats in substitution for conventional paper-based documents. The commercial implementation of EDI to effect the purchase and sale of goods has experienced exponential growth, and has begun to change the manner in which contracts are negotiated and created.

In April 1987, the Subcommittee on the Scope of the Uniform Commercial Code, of the Uniform Commercial Code Committee, Section of Business Law, of the American Bar Association, through the Electronic Messaging Services Task Force, initiated a study to examine the effects of electronic commerce upon fundamental principles of contract law and related legal issues. In 1988, that Subcommittee issued a responsive report, entitled *Electronic Messaging* (ABA Publication No. 507-0210, 1988) and authorized a further examination of EDI and other electronic messaging systems (a) to determine how contract formation and related issues were being addressed by existing agreements, (b) to identify possible uniform approaches to those issues, and (c) to develop a means of communicating to practicing attorneys the issues which should be considered when drafting agreements for parties conducting business through the use of EDI.

In July 1989, in recognition of the continued expansion of electronic commerce and the legal issues which arise as a result, a new Subcommittee on Electronic Commercial Practices was organized. In October 1989, the Electronic Messaging Services Task Force issued to the Subcommittee on Electronic Commercial Practices and to the Subcommittee on the Scope of the Uniform Commercial Code a report entitled *The Commercial Use of Electronic Data Interchange - A Report and Model Trading Partner Agreement*, 44 Bus. Law. __ [May, 1990],

which includes the Model Agreement and Commentary. Counsel is encouraged to review that report in connection with the use of the Model Agreement.

Members of the Task Force responsible for the preparation of the Model Agreement and Commentary were: Michael S. Baum (Cambridge, Massachusetts), Philip V. Otero (Rockville, Maryland), Jeffrey B. Ritter (Columbus, Ohio), Thomas J. McCarthy (Wilmington, Delaware) and Amelia H. Boss (Philadelphia, Pennsylvania). The Task Force also wishes to recognize the invaluable comments and support provided by Patricia B. Fry (Grand Forks, North Dakota), Chair of the Subcommittee on Electronic Commercial Practices.

USE OF THE MODEL AGREEMENT AND COMMENTARY

The following should be considered by counsel in reviewing and implementing the Model Agreement and Commentary:

1. Provisions of the Model Agreement contained in brackets ([]) identify options for counsel to consider; in several cases, the bracketed language represents alternatives presented within the Model Agreement, while in other instances the provisions are themselves presented as optional.
2. The Commentary has the following purposes:
 - To explain how the Model Agreement works, the purposes of each section and the intended effect of certain provisions in the context of existing commercial law.
 - To provide background technical information relating to certain aspects of EDI and prevailing general industry practices.
 - To provide specific drafting considerations on the manner in which provisions of the Model Agreement may be utilized or modified in preparing a definitive agreement.
3. The Appendix is an essential component of the Model Agreement. The parties should use the Appendix to set forth information essential to the proposed trading relationship as well as additional terms and conditions. Counsel should not consider the Appendix merely a “technical” item; rather, it is the field upon which mutual business decisions which affect the substance of the relationship of the parties, as well as the validity and enforceability of the underlying transactions, are to be specified. For that reason, the format of the Appendix is a suggested format, but does not represent a required structure. Counsel is encouraged to adapt the form and content of the Appendix to meet the requirements of any particular business relationship.

MODEL ELECTRONIC DATA INTERCHANGE TRADING PARTNER AGREEMENT

THIS ELECTRONIC DATA INTERCHANGE TRADING PARTNER AGREEMENT (the "Agreement") is made as of _____, 19____, by and between _____ ("ABC"), a _____ corporation, with offices at _____ and _____ ("XYZ"), a _____ corporation, with offices at _____.

RECITALS

ABC and XYZ desire to facilitate purchase and sale transactions ("Transactions") by electronically transmitting and receiving data in agreed formats in substitution for conventional paper-based documents and to assure that such Transactions are not legally invalid or unenforceable as a result of the use of available electronic technologies for the mutual benefit of the parties.

NOW THEREFORE, the parties, intending to be legally bound, agree as follows:

Comment

1. The scope and purposes of the Agreement are as follows:
 - The Agreement is to be used between commercial trading partners; the Agreement is not intended for use in consumer transactions.
 - The Agreement is to be used only in connection with domestic purchase and sale transactions involving goods, as contemplated by Article 2 of the Uniform Commercial Code (the "Code"). Counsel may wish to consider the Agreement in developing suitable provisions for use in other types of EDI relationships, such as those which are international in scope, or which involve the performance of services (including transportation and shipping activities).
 - The Agreement is intended to facilitate the commercial relationship of the trading parties. The Agreement does not generally advocate particular solutions to what are essentially business is-
2. Certain provisions of the Agreement have the effect of varying the application of provisions of Article 2. In this respect, the Agreement implements two of the fundamental purposes of the Code, namely (a) to simplify, clarify and modernize the law governing commercial transactions, and (b) to permit the continued expansion of commercial practices through custom, usage and agreement of the parties. See UCC Section 1-102(2). In order to accomplish these purposes, the Code is to be liberally construed and applied. See UCC Section 1-

102(1). This flexibility is intended to allow the underlying principles to be developed in light of unforeseen and new circumstances and practices. See UCC Section 1-102, comment 1. Freedom of contract is also an important principle of the Code. See UCC Section 1-102(3) and 1-102, comment 2. Thus, parties are free to vary by agreement the effect of all provisions of the Code, except to the extent the general obligations of good faith, diligence, reasonableness and care may not be displaced. See UCC Section 1-102(3) and 1-102, comment 3.

3. The Recitals set forth the mutual intention of the parties for valid and enforceable obligations to result from the electronic communication of data in substitution for conventional paper-based documents. See also Sections 1.1, 2.1 and 3.3, and the Comments thereto. The execution and delivery of the Agreement and the performance of Transactions, together with the conduct of the parties in accordance with its terms, should be considered suffi-

cient to show the existence of contracts for the sale of goods. See UCC Section 2-204.

Drafting Considerations

1. The Agreement does not designate either party as buyer or seller. Either party may, therefore, purchase or sell goods in accordance with its provisions, unless appropriate modifications are made. For example, counsel may wish to add to the Appendix, as to each Document (as defined in Section 1.1), which party may be the "Sender" of that Document. See Sections 1.1 and 3.1, and the Comments and Drafting Considerations thereto.
2. Consider whether either or both of the parties are merchants, and the implications under the Code of that classification on the underlying commercial relationship and the rules of conduct which are defined by the Agreement. See UCC Sections 2-104(1) and 2-104(3). Note that if the parties are not corporations, appropriate changes should be made.

Section 1. Prerequisites.

1.1. Documents: Standards. Each party may electronically transmit to or receive from the other party any of the transaction sets listed in the Appendix, [transaction sets which the parties regularly transmit] and transaction sets which the parties by written agreement add to the Appendix (collectively "Documents"). Any transmission of data which is not a Document shall have no force or effect between the parties unless justifiably relied upon by the receiving party. All Documents shall be transmitted in accordance with the standards [and the published industry guidelines] set forth in the Appendix.

Comment

General:

1. Establishing an EDI trading relationship, by necessity, involves a series of decisions, primarily technical in nature, by both parties regarding: (a) the formats in which the data will be transmitted, and the standards and possible implementation guidelines to be adopted in connection with such formats; (b) the possible selection of third-party service providers (as well as the various business decisions required in connection with establishing such relationship); and (c) the development and maintenance of appropriate computer and communication systems and security procedures. Section 1 and the Appendix provide a framework for the parties to mutually structure these decisions. Compliance with the provisions of Section 1 will confirm their intent to give legal significance to the transmissions. *See* Sections 2.1, 2.3 and 3.3.3, and the Comments thereto.
2. Implementing EDI should also involve careful evaluation of existing internal business procedures and controls of the parties relating to paper-based commercial practices, and consideration of the extent to which such proce-

dures and controls should be strengthened and/or modified in connection with the establishment of an electronic communication and trading environment. For example, authorizations to release purchase orders or approve payments, as well as rules regarding security and confidentiality, should be reviewed. *See also* Sections 2.1 and 3, and the Comments thereto.

3. This section contains the first use of "by written agreement" or "in writing" in the Agreement. The Agreement provides the flexibility to allow notices, modifications, amendments or other communications required or permitted by the Agreement to be "in writing" to consist of electronic transmissions, but only if the transmissions satisfy the criteria of the Agreement for "Signed Documents" (as defined in Section 3.3.2). Alternatively, the Agreement could specify paper-based writings are required, if the parties consider it appropriate.

Documents:

4. "Transaction sets" define the types of data which the specified

transmission must contain and the format in which the data must appear. Transaction sets function like conventional paper document forms, and include purchase orders, requests for quotation, purchase order acknowledgements, invoices, remittance advices and purchase order change requests. In addition, transaction sets exist in which "free text" may be communicated as a segment; this type of transaction set would be appropriate for notices, modifications or amendments (such as those described in Comment 3 above).

5. The Agreement generally applies only to those transmissions of data classified as "Documents" under Section 1.1. At a minimum, transaction sets listed in the Appendix (including subsequent additions) are Documents.
6. The Agreement provides, as an option, for transaction sets which are not listed in the Appendix but which are regularly transmitted to be considered as Documents. No attempt to define "regularly transmit" has been made. However, see Section 3.3.3 (and UCC Section 2-208).
7. The "regularly transmit" option should be considered when both parties wish to give effect to new transaction sets without express prior agreement. Parties who wish to retain tight control over which transmissions qualify as Documents under Section 1.1 will eliminate the "regularly transmit" option from the Agreement. Note that, if the "regularly transmit" option is not included, regularly transmitted transaction sets may still be given effect, though inconsistent with the terms of this Agreement. See

UCC Sections 1-103, 2-208 and 2-209. In addition, such parties may wish to eliminate from the second sentence of Section 1.1 the phrase "... unless justifiably relied upon by the receiving party" or make other modifications to, or entirely delete, that sentence. Note, however, that such changes may not effectively prevent a transmission which is not a Document from having legal effect, where the receiving party has under the circumstances, including the language in the Agreement, justifiably relied on that transmission. See Comment 6 above and Comment 8 below.

8. The second sentence of Section 1.1 is not intended to alter the law of reliance; the provision simply prevents a party which has transmitted data from avoiding the legal effect of the receiving party's justifiable reliance merely because the format had not been previously classified as a Document. However, note that the remaining provisions of the Agreement relating to Documents are not applicable in those circumstances. See, for example, Sections 1.2.3, 2.1, 3.3, and 4.6.

Standards:

9. "Standards" are the uniform specifications for the electronic interchange of business data and include provisions of the structure and format of data as well as the transmission of the formatted data. There are also standards, among other things, for certain security and communication procedures.
10. The selection of applicable standards is a matter of some flexibility. The parties may

mutually select and utilize one or more sets of recognized standards, or, within certain technical limits, customize those standards to their mutual benefit. Existing technology also permits each party to adopt a different standard for transmission of a Document, with Providers (as defined in Section 1.2.1) subsequently conforming the different formats to each party's adopted standard.

11. Virtually all standards for EDI include detailed technical requirements to facilitate EDI, including transaction sets, data dictionaries, segment dictionaries and other uniform controls. Pursuant to the provisions of the Appendix, the selection by the parties of applicable standards acts to incorporate by reference these additional requirements. Should the parties desire to exclude or modify any of such requirements, such changes may be made in the Appendix.

Guidelines:

12. "Published industry guidelines" contain recommended procedures and implementation guidelines for the use of EDI within particular industry groups (recent examples include guidelines of the automotive, chemical and pharmaceutical industries). In contrast to standards, which require compliance for the effective interchange of data, guidelines generally are intended to aid implementation among trading partners. The Agreement, as an option, provides the parties the ability to require compliance with any guidelines which they mutually adopt and specify.

13. Counsel should carefully evaluate any available guidelines to assure that any conflicts between the guidelines and the standards, or between different guidelines, are understood and resolved. The adoption of certain guidelines, for example, may affect the process of contract formation in an unintended manner, since several current guidelines suggest certain procedures (e.g., which Documents are acceptable responses to other specified Documents) which may be in conflict with what the parties mutually negotiate and specify in the Appendix. Language in the Appendix has been included to avoid this result by subordinating the content of any selected guidelines to the provisions of the Agreement.
14. Counsel should evaluate whether any existing guidelines, whether or not adopted, may be considered, in any interpretation of the Agreement, as a usage of trade to be considered with respect to any Transaction. See UCC Section 1-205(2).

Drafting Considerations

1. The parties should identify and list the transaction sets which may be transmitted between them as Documents. The Appendix is structured in accordance with most common methods of identifying Documents. However, proprietary Documents, not based upon any particular standard, may also be utilized and listed.
2. In specifying Documents in the Appendix, it is recommended that the parties agree that any selected Document be communicated only in the then current release version or the release

version immediately preceding the then current release version. Consistent with the provisions of Section 1.3, this will require the parties to periodically install new release versions of software corresponding to new revisions of the applicable standards. See Section 1.3, and the Comments thereto. Counsel may wish to consider establishing a time frame in which any such releases must be installed.

3. In completing the Appendix, any transaction set listed as an Acceptance Document (pursuant to Section 2.3) should also be listed

as a Document. See Section 2.3, and the Comments thereto.

4. The Agreement permits any Document specified in the Appendix to be transmitted by either party. If this result is not desired, appropriate restrictions should be specified in the Appendix. See Recitals, Drafting Consideration 1.
5. If the parties do not wish transmissions which are not Documents to be given any force or effect, appropriate changes may be made. See Comments 7 and 8 above.

1.2. Third Party Service Providers.

- 1.2.1. Documents will be transmitted electronically to each party either, as specified in the Appendix, directly or through any third party service provider ("Provider") with which either party may contract. Either party may modify its election to use, not use or change a Provider upon 30 days prior written notice.

Comment

1. Section 1.2 provides the structure to specify the channel(s) of communication to be used in transmitting Documents between the parties. Transmissions may be made directly between the parties or through Providers. To the extent Providers are selected, Section 1.2 provides a framework for considering those aspects of the trading partners' relationship under the Agreement which are related to the use of Providers.
2. Among other things, Providers function as electronic mail processing systems and may (a) maintain electronic "mailboxes" into which communications can be placed for trading partners, and (b) interconnect with other Providers to permit communication between their respective customers. Providers have become an important aspect of general industry practice relating to EDI.
3. Section 1.2.1 provides maximum flexibility for each party to choose and maintain the desired channel of communication. Decisions to communicate directly or through Providers will be affected by factors such as cost, the nature of available services, the volume of transmissions, the bargaining power of the respective parties and continued evolutions in technology.
4. Counsel should note that Section 1.2.1 requires the parties to have contracted with any Provider specified for them in the Appendix. This assures that each party has obtained the availability of each such Provider.

5. Notice of any modification of a party's election provides a reasonable opportunity for the other party to make corresponding adjustments in operations. Generally, 30 days is considered, consistent with general industry practice, as a reasonable notice period; however, that period may be adjusted, based on what may be reasonable for a particular relationship.

Drafting Considerations

1. If the parties elect to communicate directly, counsel may wish to consider specifying in the Appendix appropriate technical information.
2. If either party uses one or more Providers, the names and related information of such Providers are to be set forth in the Appendix. If Providers are to be used for particular services or transactions, such indications would be appropriate in the Appendix.

1.2.2. Each party shall be responsible for the costs of any Provider with which it contracts, unless otherwise set forth in the Appendix.

Comment

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Section 1.2.2 permits the parties to allocate between them the various expenses incurred in the use of Providers. Such expenses relate to the basic services of transmission, receipt, data storage, and data translation as well as additional services which may be offered. Counsel should consider the effect of this Section 1.2.2 when Providers offer a service permitting the parties to automatically agree on-line as to the allocation of these types of expenses. | <ol style="list-style-type: none"> 2. The Agreement is consistent with the general industry practice within a paper-based environment that each party absorb its respective communication costs (i.e., postage, courier costs, and printing expenses). |
|--|---|

Drafting Considerations

To the extent the parties allocate costs in a manner other than as provided in Section 1.2.2, such allocation may be added in the Appendix; no change in the Agreement is required.

[1.2.3. Each party shall be liable for the acts or omissions of its Provider while transmitting, receiving, storing or handling Documents, or performing related activities, for such party; provided, that if both the parties use the same Provider to effect the transmission and receipt of a Document, the originating party shall be liable for the acts or omissions of such Provider as to such Document.]

Comment

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. This optional Section permits the parties to establish contractual responsibility between them for the conduct of their respective | <p>Providers. This Section, if used, has the effect of providing a clear rule within the Agreement for allocating the risk of loss be-</p> |
|---|--|

tween the parties arising from the Provider's conduct. If this Section is omitted, the parties will have no contractual liability to each other under the Agreement for the conduct of their respective Providers, except where such conduct is attributable to either party and causes such party to breach the provisions of the Agreement.

2. The originating party is responsible for the acts of a shared Provider on the basis that such party initiates the final action, with respect to any Document, to use the Provider.
3. The Agreement does not address the respective right of either party to assert claims against any Provider under any applicable service contract, nor does the Agreement alter the liability of the parties to each

1.3. System Operations. Each party, at its own expense, shall provide and maintain the equipment, software, services and testing necessary to effectively and reliably transmit and receive Documents.

other, if any, pursuant to any applicable legal principles.

Drafting Considerations

1. Liability arising under Section 1.2.3 is subject to the exclusion of damages contained in Section 4.6; counsel should consider whether this result is appropriate. The possible effect of Section 4.5 (*Force Majeure*) to relieve a party of liability under Section 1.2.3 should also be evaluated.
2. Note that Section 1.2.3 does not act to allocate liability between the parties where a Provider is not used. See Section 1.2.1.
3. This Section, if used, may be modified to allocate liability in any other manner upon which the parties agree.

Comment

1. This Section imposes a reciprocal obligation upon the parties to support effective and reliable communications, and allocates the related costs.
2. Consistent with general industry practice, the obligation to "maintain" is intended to require the parties to update the specified items as necessary to assure that effective and reliable communications are maintained in accordance with prevailing commercial practices and technology. See Section 1.1, and the Comments thereto. Section 1.3 may require, therefore, additional hardware or software ac-

quisitions by the parties as well as the possible adoption of new security procedures satisfying the requirements of Section 1.4.

3. The conduct of the parties in establishing and maintaining effective and reliable communication enhances the reliability of Documents (including their content). See Sections 2.1, 3.3, and the Comments thereto.

Drafting Considerations

To the extent the parties agree upon a different allocation of expenses, appropriate changes may be made.

1.4. Security Procedures. Each party shall properly use those security procedures, including those specified in the Appendix, if any, which are reasonably sufficient to ensure that all transmissions of Documents are authorized and to protect its business records and data from improper access.

Comment

- | | |
|--|---|
| <p>1. Adequate security procedures are recognized by general industry practice as critical to the efficacy of electronic communication. This Section imposes affirmative duties to use security procedures to ensure the reliability of the communication systems and resulting business records. The use of adequate security enhances the reliability of those records and enhances the ability to prove the substantive terms of any underlying commercial transaction. See Section 3.3.4, and the Comments thereto.</p> | |
| <p>2. This Section imposes two obligations. First, each party must use security procedures sufficient to “reasonably” ensure proper authorization of transmissions. If a party fails to adequately secure its transmission activities, it may be liable for any unauthorized transmissions, and the consequences thereof. Second, each party must use security procedures sufficient to “reasonably” protect business records and data from improper access. In this case a failure to comply may again result in liability. This second obligation, when properly performed, also gives one party some measure of assurance that its own operations will not be subject to improper access through the systems and operations of the other party. A party failing to meet this second duty would, in addition, likely be stopped from submitting its records as superior to those of the other party, where the other</p> | <p>party has properly met its own duty under Section 1.4.</p> <p>3. Security procedures may be far-ranging in both sophistication and detail. Examples include the confidential exchange of Signatures (see Section 1.5) to authenticate the parties and the content of Documents which are transmitted or received, the exchange of encryption keys (by which the content of communications may be scrambled and unscrambled only pursuant to the exchanged keys), physical control of access to equipment and facilities, and the exchange of identifying information regarding the terminals from which authorized EDI transmissions may originate (which identifying information may be contained as part of the electronic “envelope” in which transmissions are exchanged).</p> <p>4. Whether in any circumstance procedures which have been adopted or implemented will be considered as “reasonable” will vary based on the sized and relative sophistication of the parties, the complexity of the operations of the parties, the nature of the communications and the underlying commercial transactions and additional factors. This Section provides an objective but flexible test by which to measure the conduct of the parties. See UCC Section 1-204(2).</p> <p>5. Under this Section, the parties may specify in the Appendix additional security procedures in connection with either or both of the requirements described in the</p> |

above comments. This provision provides flexibility; as EDI and related technologies continue to advance, increasingly sophisticated security procedures will likely emerge which may be appropriate for one or both parties to implement. Parties should consider specifying in the Appendix any existing, generally accepted security procedures, special industry standards and any proprietary or unique security procedures required by the underlying commercial relationship.

6. This Section encourages the parties to negotiate the level of security required to induce them to enter Transactions. See Section 3.3, Comment 5. However, to the extent any duty of care may

exist between the parties, liability may also arise at common law. See UCC Section 1-103.

7. This Section relates to obtaining access to business records and data; the use of such records and data is covered by Section 3.2. Counsel should consider the relationship between security procedures required by Section 1.4 and the treatment of confidentiality in Section 3.2.

Drafting Considerations

Counsel should note that the provisions of Section 4.6 (*Exclusion of Damages*) do not apply to any breach of the obligations arising under Section 1.4.

1.5. Signatures. Each party shall adopt as its signature an electronic identification consisting of symbol(s) or code(s) which are to be affixed to or contained in each Document transmitted by such party ("Signatures"). Each party agrees that any Signature of such party affixed to or contained in any transmitted Document shall be sufficient to verify such party originated such Document. Neither party shall disclose to any unauthorized person the Signatures of the other party.

Comment

1. This Section establishes a mechanism for the adoption by each party of an electronic signature by which each Document may be signed. UCC Section 1-201(39) defines "signed" to include "... any *symbol* executed or *adopted* by a *party* with present intention to authenticate a writing (emphasis added)." Use of a Signature is important to establishing the validity of any EDI communication. See Section 3.3, and the Comments thereto.
2. This Section requires each party to adopt a Signature, but retains considerable flexibility as to what symbols or codes shall be

adopted. The decision of each party will be made in light of existing technology, the relative sophistication of the parties, the requirements of applicable standards and any security procedures which are in use. A party may select as its Signature the use of its name on a Document (similar to a form of purchase order imprinted with the buyer's name and containing no other authorized signature). What is important is that the use of the adopted symbol or code reflect the intent to authenticate required by the Code. Regulating the use of any Signature may

also be part of security procedures required by the Agreement; counsel should evaluate any such procedures to assure that the required intent to authenticate is preserved.

3. The electronic signature of any party may change from time to time, in order to protect its confidential character. Accordingly, the Appendix does not provide for disclosure of any Signature, but relies on general industry practice for the exchange of Signatures by other means of communication. If any Signature is used by a party as part of

adopted security procedures the practice of periodically changing the Signature could be considered as consistent with the obligations of such party under Section 1.4 to use reasonable security procedures.

4. The last sentence of Section 1.5 prohibits only disclosure of the Signatures of the other party. If security procedures required by the Agreement relate to non-disclosure of Signatures, a party which discloses its own Signature to an unauthorized person may breach the provisions of Section 1.4.

Section 2. Transmissions.

2.1. Proper Receipt. Documents shall not be deemed to have been properly received, and no Document shall give rise to any obligation, until accessible to the receiving party at such party's Receipt Computer designated in the Appendix.

Comment

1. The increased speed and accuracy of electronic commerce fundamentally differ when compared to contract formation practices in a paper-based environment. Parties engaging in electronic commerce have the ability to efficiently determine whether a particular transmission has been received by the other party, whether any transmission is inconsistent with prior business arrangements, or whether any transmission may be outside negotiated contractual limits. Consequently, the procedures of electronic commerce, when effectively implemented, offer the opportunity to achieve greater certainty in the contracting process. Section 2 provides a framework for the effective implementation of those procedures for the mutual benefit of both parties. The provisions set forth rules pertaining to the timing of receipt (Section 2.1), the obligation of the receiving party to verify receipt (Section 2.2), the manner in which acceptance occurs within an EDI environment (Section 2.3), and the disposition of unintelligible or garbled transmissions (Section 2.4).
2. Section 2.1 provides that no Document may create any legal obligation until properly received. This Section, therefore, represents a departure from the "mailbox rule" and parallel legal doctrines. Since the technology exists by which the party originating the transmission of any Document can effectively confirm receipt has occurred, it is inappropriate that the mere dispatch of any Document should be sufficient for any legal purpose.
3. "Properly received" requires that the transmitted Document be accessible at a computer designated by the receiving party. This permits each party to determine the appropriate system location. A Receipt Computer may be the computer of the third party service provider, the computer of either party or a specific terminal within a party's internal network (for example, a billing supervisor's desk). The Receipt Computer should be situated to enable the receiving party to promptly and properly transmit a functional acknowledgement upon proper receipt of any Document, as required by Section 2.2. Such acknowledgement may be sent by the Receipt Computer or by a computer with which the Receipt Computer communicates. Counsel should review the applicable operations to ensure that a functional acknowledgement cannot be transmitted before a Document reaches the Receipt Computer. Counsel should carefully consider the effects under remaining provisions of the Agreement of selecting as the Receipt Computer a computer which is not under the respective control of each party. Note that receipt does not require that any

Document actually be examined, only that the Document be accessible. In a paper-based environment, this is similar to when a letter is delivered, but the envelope remains unopened. Each party thereby defers "receipt" until the "right" person or machine has an opportunity to have access to the transmitted data.

4. Note that Section 2.1 operates to relieve both parties from any obligation until the Document has been properly received.
5. Except as described in Comment 2 above, the provisions of Section 2 are not intended to displace other applicable laws relating to contract formation or the underlying commercial relationship of the parties.
6. Several examples which illustrate the operation of the provisions of Section 2 appear at Section 2.4, Comment 6.

2.2. Verification. Upon proper receipt of any Document, the receiving party shall promptly and properly transmit a functional acknowledgement in return, unless otherwise specified in the Appendix. A functional acknowledgement shall constitute conclusive evidence a Document has been properly received.

Drafting Considerations

1. In identifying the proper Receipt Computer, counsel may wish to consider, by example, current internal practices of the parties for giving notice under existing agreements and identify the person designated for such purposes (see Section 1.1, Comment 2). Since virtually any Document may be sent without direct human involvement, care should be taken that adequate controls have been established regulating the level of approval (and human authorization) required to properly receive any Document.
2. Counsel should consider whether any modification by either party under Section 1.2.1 will require conforming changes in the designation of the Receipt Computer for such party.

Comment

1. In light of the capability of technology to facilitate nearly immediate verification of receipt, and also to verify that no defect in receipt has occurred, Section 2.2 imposes an affirmative obligation to provide verification of receipt. Effective verification practices increase the opportunity for the early detection and resolution of transmission errors, thereby reducing the exposure of both parties to possibly significant damages.
2. A "functional acknowledgement" is a transaction set which confirms that receipt of a Document (in the format specified by such functional acknowledgement) has occurred and that all required portions of the Document have been received and are syntactically correct, but otherwise does not confirm the substantive

content of the related Document. A functional acknowledgement can verify receipt, but is also designed to identify whether, in fact, omissions or errors in format or syntax have occurred. To the extent a party transmitting a functional acknowledgement identifies any errors or omissions, such notice would satisfy the notice requirements of Section 2.4. See Section 2.4, and the Comments thereto.

3. A party will "properly transmit" a functional acknowledgement or Document if it has been transmitted in a manner which complies with the provisions of Section 1.
4. Whether or not verification is provided will not alter the legal significance of the initial Document; Section 2.1 controls in that respect.
5. Counsel may wish to evaluate whether any circumstances exist

where the affirmative obligation to verify receipt should not be imposed and make appropriate exceptions in the Appendix. For example, a party's system may not include functional acknowledgements or the parties may elect to verify in another manner, such as transaction sequence checking.

6. A party initially transmitting a Document may have an obligation to make reasonable inquiries or take other actions to discharge any duty which may exist to mitigate damages arising from a breach of the provisions of Section 2.2 by the receiving party.
7. The conclusive quality of a functional acknowledgement established by this Section assures that subsequent reliance thereon is reasonable.

2.3. Acceptance. If acceptance of a Document is required by the Appendix, any such Document which has been properly received shall not give rise to any obligation unless and until the party initially transmitting such Document has properly received in return an Acceptance Document (as specified in the Appendix).

Comment

1. Section 2.3 unambiguously indicates, with respect to the offer and acceptance of any contract, that no obligation will arise except upon satisfaction of the provisions of the Agreement. See UCC Section 2-206(1). The parties, by designating appropriate Acceptance Documents, have the opportunity to define what will constitute acceptance and can assure that no contract arises from any Document until there has been mutual and certain agreement upon the terms contained in such Document.
2. This Section permits the parties to designate Acceptance Documents for Documents not specifically included in the contract formation process.
3. An Acceptance Document might be a computer generated response or a more significant communication, possibly requiring human evaluation at the receiving end. Selection of the appropriate Acceptance Document in a particular context may

also be influenced by the manner in which either party interacts with its Provider and by the commercial relationship of the parties. Note that Section 2.3 operates to relieve both parties from any obligation until an Acceptance Document has been properly received in return.

4. Note that the party receiving a Document also controls whether the Acceptance Document is to be sent. If the proposed terms or content of an initial Document is objectionable, neither party has any obligation if the Acceptance Document is not properly received in return.

Drafting Considerations

1. In identifying possible Acceptance Documents, counsel may wish to consider, by example, current internal practices of the parties for giving notice under existing agreements and identify the person designated for such purposes (see Section 1.1, Comment 2). Since virtually any Document may be sent without direct human involvement, care should be taken that adequate controls have been established regulating the level of approval (and human authorization) required to transmit any Document.
2. Counsel is strongly encouraged to review the substantive content of possible Acceptance Documents in selecting the appropriate confirmation of any Document. For example, in response to a purchase order, the Acceptance Document may be:
 - a purchase order acknowledgement (which substantively confirms the terms of the purchase order); or

- a shipping notice (specifying that the goods have been or will be shipped; see UCC Section 2-206(1)(b)).

3. For certain Documents (for example, a notice of rejection of goods from the buyer), no Acceptance Document will be appropriate. Note, however, if the buyer, having sent such notice does not receive a functional acknowledgement in return, the buyer is on notice that its notice of rejection may not have been received, and should consider either re-sending the notice, or providing such notice by means other than EDI. See UCC Section 1-201(26).
4. Counsel may wish to consider applicable industry implementation guidelines in selecting appropriate Acceptance Documents. See Section 1.1, Comments 2 and 13.
5. Counsel should also consider what effects, if any, the selection and use of Acceptance Documents may have upon the additional terms and conditions of the underlying commercial relationship, which may more specifically address contract formation issues (such as the time period in which offers must be accepted or rejected, and the manner of communicating rejection, if at all), rights of rejection and other matters. In addition, notwithstanding the last sentence of Section 3.1, counsel should endeavor to assure that the contract formation practices developed under the Agreement are consistent with any commercial relationship established by any other agreement described in Section 3.1. See Section 3.1, and the Comments thereto.

2.4. **Garbled Transmissions.** If any transmitted Document is received in an unintelligible or garbled form, the receiving party shall promptly notify the originating party (if identifiable from the received Document) in a reasonable manner. In the absence of such a notice, the originating party's records of the contents of such Document shall control.

Comment

- | | |
|--|---|
| <p>1. Section 2.4 is intended to apply only to unintelligible or garbled messages, incapable of having effective meaning or missing material data components, for which the originating party may be identified within the context of the relevant Document. In those cases, the originating party's records control unless the receiving party gives prompt notification in a reasonable manner. See UCC Section 1-204. Such notice may be given by other than electronic means. The obligation to provide notice under this Section is not burdensome in an electronic environment, and has the advantage of assisting the transmitting party to correct promptly a miscommunication.</p> <p>2. The phrase "unintelligible or garbled" is not intended to include Documents which are, in human readable form, capable of being read but which contain information which the receiving party knows, or has reason to know, may be incorrect. For example, if ABC has always ordered no more than 200 pencils, its purchase order for 200,000 pencils should not be considered unintelligible or garbled, since pursuant to Section 2.1, the parties can adopt a procedure where XYZ can always review, confirm or reject the substantive terms contained in any Document.</p> <p>3. Section 2.4 is not intended to displace the applicable principles of</p> | <p>the law of mistake. See UCC Section 1-103.</p> <p>4. If, pursuant to Section 2.3, no obligation arises with respect to a Document otherwise subject to this Section because the required Acceptance Document has not been properly received in return, then the fact that such Document is unintelligible or garbled should have no consequences under this Section.</p> <p>5. Section 4.6 (Exclusion of Damages) clearly applies to liabilities which may arise in connection with any unintelligible or garbled transmission; if the parties wish a different result, appropriate changes may be made.</p> <p>6. The following examples illustrate the operation of the provisions of Section 2, taken as a whole:</p> <p>Example 1.</p> <p>XYZ has specified its mainframe computer as its Receipt Computer. ABC sends a Document to XYZ's Provider, but the Document is never made accessible to XYZ's Receipt Computer. ABC's transmission of the Document has no legal effect.</p> <p>Example 2.</p> <p>XYZ properly receives a purchase order from ABC but never transmits in return either a functional acknowledgement or an Acceptance Document. No contract has been formed but XYZ is liable for any damages suffered by ABC, if any, from XYZ's</p> |
|--|---|

failure to provide verification as required.

Example 3.

XYZ properly receives a purchase order from ABC which by its terms is open for 10 days. XYZ properly transmits an Acceptance Document within the 10 day period, but the Acceptance Document is not "properly received" until the 11th day. No contract is formed.

Example 4.

The Appendix requires, as to a purchase order, that a purchase order acknowledgement be sent as an Acceptance Document. ABC, as buyer, sends a purchase order, receipt of which is verified by XYZ, as seller, by sending a functional acknowledgement. However, XYZ never sends an Acceptance Document. No contract for sale has been formed.

Example 5.

XYZ properly transmits an Acceptance Document, which is received by XYZ's

Provider and stored. Meanwhile, ABC properly transmits a revocation of its offer, which revocation is properly received by XYZ's Receipt Computer before the Acceptance Document is forwarded to ABC's Receipt Computer by XYZ's Provider. No contract is formed; the revocation is effective.

Example 6.

The Appendix requires, as to a purchase order, that a purchase order acknowledgement be sent as an Acceptance Document. XYZ, as seller, properly receives a purchase order from ABC, as buyer, but the price data is missing. XYZ sends a functional acknowledgement which identifies the omitted data. Under Section 2.4, XYZ has met its obligations. If XYZ, without the price data, then sends an Acceptance Document, a contract is formed, with the price to be determined pursuant to applicable law. See UCC Section 2-305.

Section 3. Transaction Terms.

3.1 Terms and Conditions. This Agreement is to be considered part of any other written agreement referencing it or referenced in the Appendix. In the absence of any other written agreement applicable to any Transaction made pursuant to this Agreement, such Transaction (and any related communication) also shall be subject to [CHOOSE ONE]:

- [A] those terms and conditions, including any terms for payment, included in the Appendix.
- [B] the terms and conditions included on each party's standard printed applicable forms attached to or identified in the Appendix [as the same may be amended from time to time by either party upon written notice to the other]. The parties acknowledge that the terms and conditions set forth on such forms may be inconsistent, or in conflict, but agree that any conflict or dispute that arises between the parties in connection with any such Transaction will be resolved as if such Transaction had been effected through the use of such forms.
- [C] such additional terms and conditions as may be determined in accordance with applicable law.

The terms of this Agreement shall prevail in the event of any conflict with any other terms and conditions applicable to any Transaction.

Comment

1. Section 3 recognizes that the exchange of Documents furthers the commercial relationship of the parties, and that the use of available technology pursuant to its terms should not create any conflict with other written agreements between the parties, or fail to properly accommodate the terms and conditions which define the dimensions of the commercial transactions.
 - The parties execute such an agreement after the Agreement is signed.
 - The parties conduct business in the absence of, or outside the scope of, any such agreements, relying solely upon the Documents and the conduct of the parties pursuant to the Agreement to establish any contract.
2. Section 3.1 responds to three situations:
 - The parties have previously or concurrently executed a separate contract for the sale of goods, which may, by example, be in the form of a master purchase, requirements or outputs agreement. See UCC Section 2-306.

In either the first or second case, the other agreement is assumed to be the instrument by which the parties have had the opportunity to negotiate and agree upon terms and conditions applicable to any Transaction which are not defined by the content of any Document. However, in the final case, Section 3.1 requires the parties to elect from among three alternatives the manner for

- providing the additional terms and conditions not anticipated by the standard formats of applicable transaction sets.
3. Option [A] requires negotiation and agreement upon the additional terms and conditions. Such option, as compared to the remaining options, achieves the highest level of certainty in establishing the terms of any contract of sale. Essential terms and conditions to be negotiated, by way of example, may include warranty, delivery, rejection, liability for non-conforming goods and attorney's fees. The negotiated terms would be included in the Appendix.
 4. Option [B] permits incorporation into the electronic environment of existing paper-based methods of conducting business. Option [B] has the objective of clearly defining, for each party, the terms and conditions upon which it wishes to conduct business, and, to the extent amendments may be accommodated, the terms and conditions applicable at any time during the commercial relationship. If selected, however, Option [B], in anticipating, but not resolving, inconsistencies or conflicts in the respective forms of the parties, will not achieve the highest level of certainty as to the terms of any contract of sale.
 5. Option [B] requires each party's standard printed forms to be incorporated as a part of the Agreement. The parties may attach such forms to the Appendix or may identify the appropriate forms which are to be incorporated by reference. Any identification provided should be sufficiently specific to identify only one form. However, selecting the option of attaching such forms to the Appendix assures that the terms and conditions of such forms are explicitly known and disclosed.
 6. In response to general industry practice, Option [B] includes, as a further option, language permitting the terms and conditions of any form attached to or identified in the Appendix to be amended by subsequent written notice (which notice must be sufficient to adequately identify the new form or changes). If this option is elected, either party may incorporate into EDI trading the changes in terms and conditions which may occur in its paper-based trading practices. Parties wishing to retain greater control over subsequent amendments would not elect the optional language. In that case, subsequent forms would require mutual agreement for subsequent attachment or identification.
 7. In the event of any inconsistency or conflict between the respective forms of the parties, Option [B] incorporates the method of resolution set forth in UCC 2-207 and other applicable law. Since the attached or identified forms will correspond to Documents which have been transmitted, the terms and conditions contained in such forms should be considered in the same sequence in which the related Documents are transmitted and received between the parties.
 8. Option [C], if elected, incorporates into each contract for sale of goods the manner by which applicable law determines additional terms and conditions (other than quantity) which have not been agreed upon by the parties. See *e.g.*, UCC Sections 2-305 (Open Price Term), 2-307 (Delivery and Single Lot), 2-308

(Place for Delivery) and 2-309 (Time for Shipment or Delivery). Under the circumstances contemplated by the Agreement, any contract for sale should not fail for indefiniteness. See UCC Section 2-204(3).

9. The last sentence of Section 3.1 confirms that the intent of the parties to give effect to the provisions of the Agreement is not contradicted by other terms and conditions applicable to any Transaction, whether set forth in any agreement described in Section 3.1 or by applicable law. For example, a separate contract for the sale of goods may provide for acceptance, in a paper-based environment, to occur upon the receipt of a signed purchase order acknowledgement at the offices of buyer by certified mail. The last sentence of Section 3.1 provides for the acceptance mechanism established pursuant to the Agreement to control with respect to EDI transmissions. Thus, the commercial intent of the parties, taken as a whole, is given effect.

3.2. Confidentiality. No information contained in any Document or otherwise exchanged between the parties shall be considered confidential, except to the extent provided in Section 1.5, by written agreement between the parties, or by applicable law.

Comment

1. Section 3.2 focuses on whether the information transmitted in any Document requires confidential treatment by the parties. This Section provides for no confidential treatment except for Signatures (as provided in Section 1.5), and as required by other

Drafting Considerations

1. If the parties clearly intend that the Agreement is to be used solely and exclusively in connection with other written agreements, and that no other EDI transactions should be authorized, the second sentence of this Section may be deleted. However, such sentence serves as a "safety basket" for future transactions not otherwise contemplated and should be deleted only after careful analysis.
2. If the parties elect Option [A], counsel is encouraged to carefully consider whether additional terms and conditions should be included to fully implement the commercial intentions of the parties expressed in other provisions of the Agreement. See Section 1.1, Comment 2, and Section 2.3, Drafting Consideration 5.
3. If the parties elect Option [B], counsel may wish to consider specifying the method of providing notice of any amendments to the printed forms adopted by either party, as well as any minimum period before such notices take effect.

to any relevant information or 47 USC 605.

2. If confidential treatment is to be provided, counsel, in substitution for the provisions of Section 3.2, should prepare appropriate provisions as to the scope and duration of any obligations, as well as appropriate remedies. Counsel may wish to give special emphasis, if only certain information is to be considered as confidential, on the manner in which, in an electronic environment, informa-

tion is to be designated as confidential by the parties. Information may be designated as confidential on a transaction-by-transaction basis by including an appropriate designation (by the use of special codes) within the related electronic transmissions. Such a technique would satisfy the requirement of this Section 3.2 for "written agreement" if the parties intend for that effect. See Section 1.2, Comment 3.

3.3. Validity: enforceability.

- 3.3.1. This Agreement has been executed by the parties to evidence their mutual intent to create binding purchase and sale obligations pursuant to the electronic transmission and receipt of Documents specifying certain of the applicable terms.
- 3.3.2. Any Document properly transmitted pursuant to this Agreement shall be considered, in connection with any Transaction, any other written agreement described in Section 3.1, or this Agreement, to be a "writing" or "in writing"; and any such Document when containing, or to which there is affixed, a Signature ("Signed Documents") shall be deemed for all purposes (a) to have been "signed" and (b) to constitute an "original" when printed from electronic files or records established and maintained in the normal course of business.
- 3.3.3. The conduct of the parties pursuant to this Agreement, including the use of Signed Documents properly transmitted pursuant to this Agreement, shall, for all legal purposes, evidence a course of dealing and a course of performance accepted by the parties in furtherance of this Agreement, any Transaction and any other written agreement described in Section 3.1.
- 3.3.4. The parties agree not to contest the validity or enforceability of Signed Documents under the provisions of any applicable law relating to whether certain agreements are to be in writing or signed by the party to be bound thereby. Signed Documents, if introduced as evidence on paper in any judicial, arbitration, mediation or administrative proceedings, will be admissible as between the parties to the same extent and under the same conditions as other business records originated and maintained in documentary form. Neither party shall contest the admissibility of copies of Signed Documents under either the business records exception to the hearsay rule or the best evidence rule on the basis that the Signed Documents were not originated or maintained in documentary form.

Comment

- | | |
|---|---|
| <p>1. This Section confirms the validity and enforceability of the underlying contracts formed by the electronic transmission and receipt of Documents. See Recitals, Comment 3.</p> <p>2. The intent of any party to a contract that the contract be legally binding is an essential predicate for the underlying transaction. The Recitals of the Agreement initially stated the parties' intentions that Transactions arising under the Agreement be legally valid and enforceable; Section 3.3.1 implements such intent.</p> <p>3. Section 3.3.2 establishes any properly transmitted Document as a "writing". This provision expands upon the existing definition contained in UCC Section 1-201(46) (defining "writing" to include "printing, typewriting or any other intentional reduction to tangible form."). This modification is of the type contemplated by the Code. See UCC Section 1-102(3) and Recitals, Comment 2.</p> <p>4. Section 3.3.2 (taken with the provisions of Section 1.5) also establishes Signed Documents as sufficient to satisfy the formal requirements of UCC Section 2-201 (the Statute of Frauds) when the Documents relate to the formation of any contract for the sale of goods for the price of \$500 or more. See UCC Section 2-201 and comments thereto. Finally, Section 3.3.2 also establishes that Signed Documents shall be deemed to constitute "original" business records under certain circumstances. See Comment 7 below; see also Section 1.4, Comment 1.</p> | <p>5. Under Section 3.3.3, the conduct of the parties pursuant to the Agreement constitutes a course of dealing and a course of performance upon which they may rely in structuring their business relationship. This conduct includes the identification of the Documents to be transmitted, the establishment of channels of communication and the adoption of mutually acceptable security procedures, all pursuant to the provisions of Section 1. UCC Section 2-208 contemplates that such conduct be considered in determining the meaning of this Agreement and any underlying contract for the sale of goods. See UCC Sections 1-205 and 2-208. This conduct, either as a course of dealing or as a course of performance, should be given effect with respect to both the Agreement and other applicable purchase contracts, independent of the status of Signed Documents as signed writings under applicable law. See also UCC Sections 2-202(a) and 2-207(3).</p> <p>6. Nothing in the Agreement, other than the prohibition on oral waivers contained in Section 4.3, operates to prevent either party from contending that the terms and conditions applicable to any Transaction, or those set forth in the Agreement, may be modified or waived as contemplated by UCC Section 2-209.</p> <p>7. Section 3.3.4 establishes rules of conduct for the parties in connection with the use of Signed Documents as evidence in any proceeding between the parties. By way of example, see Federal Rules of Evidence 802, 803(6) and 1002. However, Section 3.3.4 (together with Section</p> |
|---|---|

3.3.2) does not waive the need for a proper foundation to be established for the admissibility of the evidence. In this regard, the effectiveness and reliability of each party's security procedures, record retention policies, confidentiality obligations and their

conduct under the provisions of the Agreement may be relevant in individual cases to the ultimate admissibility of any Signed Documents.

Section 4. Miscellaneous.

4.1. Termination. This Agreement shall remain in effect until terminated by either party with not less than 30 days prior written notice, which notice shall specify the effective date of termination; provided, however, that any termination shall not affect the respective obligations or rights of the parties arising under any Documents or otherwise under this Agreement prior to the effective date of termination.

Comment

- | | |
|--|--|
| <p>1. The provisions of Section 4 include provisions often found in many types of agreements. These provisions are not exclusive, and counsel may wish to consider other similar customary provisions which, for the most part, are not effected by the use of electronic communications. However, as discussed in these Comments, these provisions focus upon some significant legal factors relating to the use of electronic communication under the Agreement.</p> | <p>(or re-institute) alternative procedures of communication.</p> |
| <p>2. Section 4.1 assures freedom of contract, but also assures the non-terminating party an appropriate opportunity to establish</p> | <p>3. A 30-day notice period is considered reasonable by general industry practice. However, see Section 1.2.1, Comment 5.</p> |
| <p>3. Section 4.1 assures freedom of contract, but also assures the non-terminating party an appropriate opportunity to establish</p> | <p>4. Any notice of termination under Section 4.1 does not affect obligations under the underlying commercial relationship; any notices relating to such obligations would be separately required.</p> |
| <p>4. Section 4.1 assures freedom of contract, but also assures the non-terminating party an appropriate opportunity to establish</p> | <p>5. With respect to the requirement that notice under this Section be "written", see Section 1.1, Comment 3.</p> |

4.2. Severability. Any provision of this Agreement which is determined to be invalid or unenforceable will be ineffective to the extent of such determination without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such remaining provisions.

Comment

<p>The Agreement has been prepared for implementation in a variety of situations; Section 4.2 has been included to assure that the entire contract does</p>	<p>not fail in the event any specific provision is determined to be unenforceable under any particular circumstances.</p>
---	---

4.3. Entire Agreement. This Agreement and the Appendix constitutes the complete agreement of the parties relating to the matter specified in this Agreement and supersede all prior representations or agreements, whether oral or written, with respect to such matters. No oral modification or waiver of any of the provisions' of this Agreement shall be binding on either party. No obligation to enter into any Transaction is to be implied from the execution or delivery of this Agreement. This Agreement is for the benefit of, and shall be binding upon, the parties and their respective successors and assigns.

Comment

1. Section 4.3 integrates the Appendix with the Agreement into a complete agreement. The provisions of Section 3.1 are effective to integrate the Agreement (with the Appendix) into any other specified purchasing contract.
2. Section 4.3 permits modifications and waivers of the Agreement by Signed Documents (but the parties must include "free-text" Documents to have this result). See Section 1.1, Comments 3 and 4.
3. This Section confirms that the Agreement itself creates no obligations relating to the purchase and sale of goods; such obligations arise only from the Documents and the conduct of the parties.

4.4. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of _____.

Comment

In addition to customary factors considered in selecting applicable law, counsel may wish to evaluate various state laws which may be in effect relating to criminal use of computers, computer privacy and similar issues relating to technology.

4.5 Force Majeure. No party shall be liable for any failure to perform its obligations in connection with any Transaction or any Document, where such failure results from any act of God or other cause beyond such party's reasonable control (including, without limitation, any mechanical, electronic or communications failure) which prevents such party from transmitting or receiving any Documents.

Comment

1. The scope of this Section is limited to events which prevent the transmission or receipt of Documents and does not extend to the impact of those events on any other obligations of the parties, whether under the Agreement or in connection with any underlying Transaction.

- | | |
|---|--|
| <p>2. Among other things, this Section is specifically intended to excuse performance resulting from such events as a general power outage in the community or unscheduled “down-time”, events outside the reasonable control of one of the parties.</p> <p>3. Counsel should carefully consider the effect of this Section</p> | <p>upon the obligations arising under Section 1.2.3, if such Section is included. To the extent Section 1.2.3, imposes liability, counsel should evaluate whether Section 4.5 reduces or eliminates liability to the extent the actions of a Provider may be considered beyond the reasonable control of either party.</p> |
|---|--|

4.6 Limitation of Damages. Neither party shall be liable to the other for any special, incidental, exemplary or consequential damages arising from or as a result of any delay, omission or error in the electronic transmission or receipt of any Documents pursuant to this Agreement, even if either party has been advised of the possibility of such damages.

Comment

Since the benefits of conducting electronic commerce are substantial and far-reaching, an exclusion of damages is appropriate and consistent with general industry practice to encourage recognition of those benefits. However, the scope of this Section is also limited, as provided in Section 4.5, solely to damages arising from or as a result of any delay, omission or error in the transmission or receipt of Documents

pursuant to the Agreement. See Section 2.4, Comment 5. Section 4.6 does not limit any damages resulting from a breach of Section 1.4 (*Security Procedures*) or Section 1.5 (*Confidentiality*) and does not apply to damages resulting from a breach of any related Transaction. If different results are desired, appropriate changes should be made.

[4.7. Arbitration. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled in accordance with the Commercial Arbitration Rules of the American Arbitration Association, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.]

Comment

- | | |
|--|--|
| <p>1. Section 4.7 sets forth, as an option, the recommended arbitration clause of the American Arbitration Association.</p> <p>2. Counsel is encouraged to consider the advisability of arbitration and other forms of alternative dispute resolution in</p> | <p>connection with the Agreement and Transactions conducted pursuant to the Agreement. Of course, to the extent arbitration or other similar methods are considered appropriate, the parties may modify or amend the suggested language.</p> |
|--|--|

Each party has caused this Agreement to be properly executed on its behalf as of the date first above written.

ABC

XYZ

By _____

By _____

Name: _____

Name: _____

Title: _____

Title: _____

APPENDIX

STANDARDS

Specify ALL applicable standards (and the issuing organizations):

Selected standards include, as applicable, all data dictionaries, segment dictionaries and transmission controls referenced in those standards, but include only the Transaction Sets listed in the DOCUMENTS section of this Appendix below.

DOCUMENTS

Transaction Set No.	Document Name or Description	Version Release	Verification Required (Yes or No)	Acceptance Required (Yes or No)	Acceptance Document	
					Transaction Set No.	Document Name or Description
		Then current and one prior version				

GUIDELINES

Specify ALL applicable published industry guidelines:

The provisions of the Agreement (including this Appendix) shall control in the event of any conflict with any listed guidelines.

THIRD PARTY SERVICE PROVIDERS

(If the parties will be transmitting Documents directly, insert "NONE")

	Name	Address	Telephone Number
ABC -			
XYZ -			

RECEIPT COMPUTER

ABC -
XYZ -

ALLOCATION OF PROVIDER COSTS

(If no special allocation has been agreed upon, enter "NONE"): _____

SECURITY PROCEDURES

(If no security procedures have been agreed upon, enter "NONE"): _____

EXISTING AGREEMENTS

(If the Agreement is not to be considered a part of any existing written agree-
ment, enter "NONE"): _____

[TERMS AND CONDITIONS

If the parties select Section 3.1[A], specify terms and conditions: _____

If the parties select Section 3.1[B], attach applicable forms or provide sufficient
identification of each form being incorporated: _____]

B External Code Sources

38 Product Characteristic Data

SIMPLE DATA ELEMENT/CODE REFERENCES

559/AA, 559/ST, 751

SOURCE

Metals Industry Implementation Guideleines for EBDI: Aluminum Product Supplements (Vol. II)

Metals Industry Implementation Guidelines for EBDI: Steel Product Supplements (Vol. III)

AVAILABLE FROM

Aluminum Association
900 19th Street, N.W.
Washington, DC 20006

American Iron & Steel Institute
1133 15th Street, N.W., Suite 300
Washington, DC 20005

ABSTRACT

An industry maintained product description code list which provides specific product characteristic data.

46 Telecommunications Industry Codes

SIMPLE DATA ELEMENT/CODE REFERENCES

66/41, 66/42, 128/13, 128/15, 235/TY, 559/TI, 1000, 751

SOURCE

Telecommunication Industry Forum (TCIF) Guidelines

TCIF Service Characteristic Qualifiers and Codes

AVAILABLE FROM

Exchange Carriers Standards Association, Secretariat
1200 G Street, NW
Suite 500
Washington, DC 20005

ABSTRACT

The TCIF Guidelines and Service Characteristic Qualifiers and Codes list the suggested codes to be used in the industry. The codes in the Guidelines are subsets of the ASC X12.3 Data Element Dictionary. The Service Characteristic Qualifiers and Codes contain the industry-maintained codes for the service ordering and billing processes for the industry.

113 Standard Industrial Classification Code

SIMPLE DATA ELEMENT/CODE REFERENCES

235/SI, 559/MB, 23/V, 1270/SI, 751

SOURCE

Standard Industrial Classification Manual

AVAILABLE FROM

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

ABSTRACT

The Standard Industrial Classification (SIC) is a system for classifying establishments by type of economic activity. Its purposes are: (1) to facilitate the collection, tabulation, presentation, and analysis of data relating to establishments and (2) to promote uniformity and comparability in the presentation of statistical data describing the economy.

122 Natural Gas Policy Act (NGPA) Category Code

SIMPLE DATA ELEMENT/CODE REFERENCES

128/NG

SOURCE

COPAS Bulletin No. 7, Gas Accounting Manual

AVAILABLE FROM

Kraftbuilt Products
P.O. Box 800
Tulsa, Oklahoma 74101

ABSTRACT

Bulletin Number 7, developed by the Council of Petroleum Accountants Societies (COPAS), includes a discussion of the Natural Gas Policy Act (NGPA) which established maximum wellhead prices for natural gas by category. The bulletin identifies and describes each of the NGPA categories.

261

American Petroleum Institute (API)

SIMPLE DATA ELEMENT/CODE REFERENCES

559/AP, 1270/PLC, 1270/PLS, 1270/PPD, 1270/PPP, 1270/PPS, 1270/PPV,
1270/PRA, 1270/PRC, 1270/PRT, 128/WB, 1270/PIT

SOURCE

AVNET Implementation Guide
REGS Implementation Guide

AVAILABLE FROM

Order Desk
Publication Office
The American Petroleum Institute
1220 L Street, N.W.
Washington, DC 20005

ABSTRACT

These codes describe refined petroleum products.

401

Petroleum Industry Data Dictionary (PIDD)

SIMPLE DATA ELEMENT/CODE REFERENCES

128/WE, 559/AP, 1270/PLC, 1270/PLS, 1270/PPD, 1270/PPP, 1270/PPS,
1270/PPV, 1270/PRA, 1270/PRC, 1270/PRR, 1270/PRT, 1270/PWA, 1270/PWR,
1270/PWS, 1270/PWT

SOURCE

Petroleum Industry Data Dictionary

AVAILABLE FROM

Petroleum Industry Data Exchange
American Petroleum Institute
1220 L Street, NW
Washington, DC 20005

ABSTRACT

The Petroleum Industry Data Dictionary is a working repository for standardized business terms, definitions and code lists across the oil & gas industry.

