SUSITNA
HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION
PROJECT No. 7114

RECORDS MANAGEMENT SYSTEM
FILE REFERENCE REPORT

FINAL REPORT

HARZA-EBASCO
SUSITNA JOINT VENTURE

JUNE 1987
DOCUMENT No. 3500

ALASKA POWER AUTHORITY

SUSITNA HYDROELECTRIC PROJECT

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BACKGROUND INFORMATION

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BACKGROUND INFORMATION

This file reference report is intended to provide insight into the studies and explorations that were conducted on the Susitna Hydroelectric Project and to provide practical details on the records management and retrieval system that has been established by the Alaska Power Authority. The Susitna Records Management System was established to protect and preserve the many records that were produced as a result of the State's investment in the project and to allow public access to these records. This report will provide information on how the records can be accessed and where the records are stored.

The Records Management System is primarily comprised of reports and data gathered during the three and one half years the Harza-Ebasco Joint Venture worked on the project, but efforts were made to include information in the system that was generated by state and federal agencies and independent contractors as early as 1948. Thus, while the vast majority of the information in the system represents data generated since early 1983, the system also includes a considerable amount of feasibility work performed by Acres American Inc. between the years 1980 and 1983, the U.S. Army Corps of Engineers between 1974 and 1980, and the U.S. Bureau of Reclamation prior to 1974.

The system contains considerable scientific and engineering data which has significant value to Alaska. In this regard, not only are the data available to the State if it decides to pursue the project in some form in the future, but the project itself significantly advanced the present day knowledge of the biologic, geologic, and hydrometerlogic setting of Southcentral Alaska.

The Susitna Project as currently envisioned would consist of two large dams located on the Susitna River in the uplands above Talkeetna. The project

would include an 870 foot high earth fill dam known as Watana and a 635 thin-arch dam at Devil Canyon. In tandem, the dams would be capable of producing 7.3 billion kilowatt hours of hydropower. Power would be brought to Fairbanks, Anchorage, and south to Seward and Homer by way of a high voltage transmission system which has already been partially constructed.

This two dam scheme is relatively new concept for developing the Susitna river potential. It was first proposed by the U.S. Army Corps of Engineers in their report to Congress in 1976. The Alaska Power Authority adopted the concept after extensive investigations in the early 1980's. Investigations prior to those of the Corps of Engineers suggested other measures for harnessing the river's potential. Kaiser Engineers proposed a three dam scheme and a quasi private-state development in 1975. Even earlier, the U.S. Bureau of Reclamation proposed a four dam scheme to include dams at Devil Canyon, Watana, Vee, and Denali. This proposal was actually transmitted to Congress in 1961, but the Secretary of Interior recommended no further action pending the Crops of Engineers findings on the massive Rampart hydropower proposal which was under active investigation at the time. Even earlier, studies by the Bureau of Reclamation in the latter 1940's suggested as many as twelve dams be built throughout the entire Susitna drainage basin. This latter study was only reconnaissance level, but it lead to the more detailed studies and eventually, the four dam recommendation.

The level of effort that has been performed on Susitna over the years has generally been supportive of the present day two dam scheme. The Bureau of Reclamation proposal for four dams was prefeasibility as a whole, but the geotechnical investigations associated with the Devil Canyon project were of feasibility level. This included an extensive core drilling program at Devil Canyon, and preliminary field investigations at the Denali damsite. The Corps of Engineers investigations were at a prefeasibility level but they did conduct confirmation drilling at the Watana dam site as well as some additional drilling on the right abutment of the Devil Canyon dam site. The Corps of Engineers investigations were comprehensive in that the Corps

reviewed all of the dam configurations previously proposed by Kaiser, the Bureau of Reclamation, and others and ultimately concluded that the Devil Canyon/Watana combination, constructed in two stages - Watana first followed by Devil Canyon, was the economically and environmentally superior project. The Kaiser studies must be considered reconnaissance in scope as no new field work was conducted at their proposed damsites.

The Alaska Power Authority established jurisdictions over the project and contracted with Acres American Inc. in January of 1980 to review the economic and environmental feasibility of the project and to prepare the Federal Energy Regulatory Commission license application. This phase of the project was accomplished over a three year period and was funded by a $35 million appropriation from the Alaska Legislature. In order to insure objectivity, the Governor's Office was given the task of independently conducting an alternative energy assessment. Battelle Pacific Northwest Laboratories, Inc. was hired to perform this assessment and they concluded that the Corps of Engineers two- dam plan was indeed the superior alternative for satisfying the long term energy needs of the Railbelt area.

The Board of Directors of the Power Authority voted in the Spring of 1982 to pursue the FERC license to construct the project and hired the joint venture of Harza Engineering Company and Ebasco Services, Inc. (Harza-Ebasco) in January 1983 to initiate project design. A change in administration and a new Board of Directors for the Power Authority curtailed design activities as the world price of oil began to soften. A drop in oil price would decrease the State's revenue and hence its ability to finance the project. Concurrently, economic development in the State began to slow, as did the projected need- for-power forecasts. Thus, Harza-Ebasco was relegated the job of coordinating the overall licensing process while the State continued to review its financing options during this period of economic coalescence. Design was indefinately postponed.

Since the State's ability to finance the project as originally proposed was becoming questionable, Harza-Ebasco investigated alternatives to reduce the large initial expenditure required for the two-stage, two-dam project. The result of this investigation was a recommendation to construct the two-dams in three-stages rather than two. By constructing the original first stage Watana Dam is two stages rather than one, the initial investment required for the project would be less. The remaining stages would be constructed after the initial stage was operational and producing revenues. The three stage project would be constructed as follows: stage 1 - Watana at approximately three-quarters total height, stage 2 - Devil Canyon at full height; and stage 3 - raising Watana to full height. The three stage concept was accepted by the Power Authority and a draft amendment to the FERC License was prepared and submitted to FERC and state and federal agencies.

The Power Authority had intended that the project construction would be financed through a combination of Revenue Bonds and State equity. However, as the price of oil dropped, surplus revenues needed for the State's equity contribution began to disappear. In February 1986 the Power Authority issued a finance plan that concluded that use of the earnings from the Permanent Fund was the only significant amount of money available to fund the State's portion of the project. By this time the State had expended approximately $100 million during the project's licensing phase on exhaustive biologic, geophysical, hydrological, and economic investigations.

Based on the results of the finance plan, the Power Authority shifted its focus to the much more inexpensive Devil Canyon project as the first stage development of the two-dam scheme. Devil Canyon was found to be economically attractive as a stand-alone project and more environmentally benign than the larger Watana project. In addition, more than 75 percent of the data previously collected for the Watana project was directly applicable for use on the Devil Canyon project.

Despite the fact that the project represented the best long range energy option for the railbelt, in April 1986 the Board of Directors of the Power Authority decided to terminate the project. In doing so, the Power Authority directed Harza-Ebasco to prepare the Susitna project records for archives in such a manner that the State's $135 million investment would be preserved to the maximum extent possible. To this end Harza-Ebasco developed the Susitna Records Management System.

With the reutilization of the information available in the system, it is estimated that it would be possible to secure a FERC license for the construction of the Devil Canyon project within a 30 month time frame. In view of the current load demand projections, the much larger Watana project would take longer to license. In any event, the vast majority of the information collected by the State, in consonance with the work previously performed by the Corps of Engineers and the Bureau of Reclamation, can be directly applied to a renewed effort to construct the Susitna hydropower project. Once constructed, the project will provide a renewable source of energy for Alaska well into the next century.

OVERVIEW OF SUSITNA FILE MANAGEMENT SYSTEM

The Susitna Records Management System is composed of a group of independent files having a common computerized tracking and retrieval system. The Records Management System was developed through an extension of the independent filing/tracking systems utilized during the last three active years of the Project. The decision to continue the use of and expand the independent filing systems, rather than develop one integrated subject based file system, was based on a combination of budget concerns, the uncertainty in the types and numbers of records to be accumulated, the staff familiarity with the existing systems, and the benefits of utilizing the three years of data input, in substantially unchanged form. Although the use of separate filing systems for the various components of the Records System makes the identification and retrieval of information more cumbersome, the substantial cost

savings associated with the separate filing systems dictated their use. However, even though speed and convenience have been sacrificed for cost, the computerized tracking/retrieval system will permit access to all Susitna records, although each set of files will have to be retrieved separately.

The Susitna Records Management System was designed to preserve the data and reports generated during the Susitna investigations and make them accessible to the State of Alaska and other interested parties. The Records System is composed of three distinct parts:

1. Hard copy,
2. Microfiche, and
3. Computer index.

First is the hard copy. These are the reports, raw data, reduced data, field notes, computer printouts, prints, drawings, photographs, computer disks and tapes, and other forms of information compiled during the course of the investigations. Much of this information is one of a kind data that would be costly to reproduce if lost or discarded. The hard copy includes virtually all of the data in its original or finalized form that was created during the course of the Susitna investigations. Some of these data, in the form of completed reports, have been distributed to appropriate interested agencies and individuals.

The second element of the Records System is a microfiche backup of much of the original hard copy. Conceivably, it would be possible to microfiche virtually all of the hard copy in the system and then discard the hardcopy all together. However, in the event that the state decides to reactivate the Susitna investigations or elements of them, it would be extremely difficult and expensive for engineers to search the voluminous microfiche records and attempt to recreate appropriate sections. As such, the Power Authority has decided to microfiche as much of the data as practical and to store the hardcopy in the University of Alaska, Fairbanks archives for an indefinite

period. The microfiche can be used to recreate distinct elements of data as needed by the state or independent researchers, or the majority of the system could be recreated in the event that the original hardcopy is lost or discarded in the future. Since the state will discard all but one copy of the documents and data in the system, the microfiche backup will be the most appropriate source from which reproductions of individual documents or portions of data can be created for the general public or other interested parties.

The third element of the record system is the overall index and retrieval system. This can best be described as a computerized listing of all of the data and documents in the system. In general, the computerized listing identifies what is in the system and provides the keys necessary for location and retrieval. This is the element that gives order to the entire volume of information being preserved. Because of the shear magnitude of data and reports generated during the course of the Susitna project, a computerized index and retrieval system is manditory for efficient system use.

In summary, the system includes the original hardcopy, microfiche backup for much of the hardcopy, and a computerized system for data tracking and retrieval of information.

The records control system utilized for the project is based on a computer softwear program known as Rbase 5000. Rb5000 allows for input and storage of uniquely identifiable information not itemized or stored by specific subject matter. Subject matter, however, can be accessed by a keyword, title, or subject matter search. In fact this is the primary difference between the Susitna Records Management System and a traditional library-type system. A typical library generally segments records by subject matter or author. This procedure facilities the limited search capability of the library. With the speed of the personal computer however, data which has been stored randomly can be easily searched thereby simplifying the task of structurally setting up the system. That is, data can be input without

regard to sequence; the computer, then can identify the data in the system and provide the necessary location information.

Several systems were considered before the Rb5000 program was selected. Of paramount concern was the fact that there was limited time and budget to effectively prepare a large quantity of records for archives. Concurrently, there was a need for a system that could manage massive amounts of records without a substantial amount of upfront sorting and, along the same line, to utilize as much of the existing document control system as possible. In order to develop a conventional system based on sequential listing of author and title, it would have been necessary to individually cross reference every single document that would be going into the system. It would have required a substantially larger staff than was budgeted. Rb5000 allowed for the random input of files, thereby saving countless man-hours of sorting and cataloging and also allowed substantial use of the three plus years of data input into the Harza-Ebasco document control system. The Rb5000 program allows searches by any number of criteria to create hardcopy inventories of like subjects. As such, the main advantage of the system is that it was economical to implement. The main disadvantaged is that the subject matter is scattered throughout the system rather than in distinct locations for easy perusal and retrieval. On the other hand, there is little need for a researcher to confine a search to one physical location. The nature of the Susitna project is such that subject matter is discussed throughout such a broad range of documents that it would be difficult to physically locate individual subject matter in distinct locations. Thus the Rb5000 system is ideally suited to the Susitna Records Management System. An attempt has been made, however, to segment categories of documents for easy reference. A listing of the categories and status of the information in each is contained in the following section of this report.

The computerized retrieval system lends itself to segmenting blocks of records by individual categories. It is possible for instance to print out the titles of all documents contained in the system sorted by either date,

author, document number, or some combination of these variables. The print out could then be reviewed manually to locate desired information. A manual search is cumbersome and does not utilize the obvious advantage of the available computerized location and retrieval system. Its main advantages would be for individuals very familiar with the records system and for transmitting information to inquiring parties interested in a complete or specific listing of information in the system or system subset. Conversely, it may be desirable to produce copies of the titles of documents with very distinct subject constraints. As an example, the Power Authority may wish to make available a print out of information that would include all moose studies conducted by the Alaska Department of Fish and Game during 1985. The computer would search all document titles and keywords for moose, for the year in which the studies were conducted, and by the author. The output would be a subset of the entire record system, but it would be of specific interest to certain parties.

The Susitna Records Management System is designed for use on the IBM PC or compatible system. The user of the system needs only a basic knowledge of the DOS operating system and how to enter the basic commands to initiate the Rb5000 system. The Rb5000 system itself is user friendly and is easy to use. Step by step instructions are provided on the use of the system in later sections of this report.

Principal file categories, contents, and location

In order to facilitate the storage and retrieval process, the files contained in the Susitna Records Management System have been divided into seven categories. The categories are based on physically similar types of documents. These files categories are as follows:

Documents
Correspondence

Data/Information
FERC Requests/Responses
Photographs
Maps/Drawings
Report Originals

Appendix A contains a summary of the location and disposition of records in the system as well as a contact list for the repositories. The table indicates where the hardcopy is located for each of the seven file categories and where microfiche is located. It also indicates which agencies maintain the Rb5000 sofware and copies of the database files.

A brief description of the contents of the data in the seven file categories is as follows:

Documents. This file category contains books, bound reports, or other information bound in a report format. In some instances a piece of correspondence may have been cited as a reference in a report. In such cases the correspondence was bound in a hard cover and was processed as any other 'formal' report (of course, the piece of correspondence also would be contained in the correspondence file category). The materials contained in this category are either project reports (those developed directly from project related activities), reports used as references in various project reports, or general reference materials.

The main repository of this file is the orignial microfiche in the Juneau archives. The Power Authority library, however, contains a complete hard copy set as well as a microfiche set and the University of Alaska, Fairbanks contains a partially complete hard copy set. In addition, many of the documents contained in this file can be also be found in the various libraries throughout the state. All of the documents in this file (with the exception of standard hardbound reference texts) have been microfilmed.

Correspondence. Included in this category are all letters, letter reports, or other forms of communication in which Harza-Ebasco was a party or was copied. This category has been totally microfilmed and the hardcopy destroyed. Microfiche copies of this information will be retained at the Power Authority library and the State Records Center in Juneau.

Data/Information. This file contains all raw data, reduced data, calculations, cost estimates, field log books, subcontractor correspondence, report backup, and all other forms of data. The data medium consists of magnetic tapes, floppy disks, computer printouts, hand written notes and logs, and basic engineers calculations. It is one of a kind information that is on loan from the Juneau Archives and is being stored at the University of Alaska, Fairbanks. Most of the information in this file has been microfilmed (magnetic storage media, photos, etc. were, of course, not possible to film).

FERC Requests/Responses. This file contains all of the FERC requests for supplemental information and the Power Authority's responses. This is a very important file in that it contains the outstanding FERC questions and draft responses that were pending when the project was terminated. This file has been totally microfilmed for retention at both the Power Authority library and the Juneau Records Center.

Photographs. This file contains aerial photography of the Susitna River and of the proposed transmission line routes. The hardcopy, is being stored at the University of Alaska, Fairbanks, on loan from the Juneau Archives, while the negatives are being stored in the climatically controlled vault of North Pacific Aerial Survey in Anchorage. The negatives generated for vegetative mapping are being stored by the U.S. Geological Survey (NICI).

Maps/Drawings. This file contains all of the original drawings and mylars of engineering drawings and land ownership maps. The originals are stored at the University of Alaska, Fairbanks, on loan from the Juneau Archives. The original film is in the State Archives in Juneau. The Power Authority maintains the drawings on aperture cards.

Report Originals. This file includes the camera ready copy of project reports and distribution information. This file was not microfilmed. The hardcopy of this file is being retained at the Records Center in Juneau. In addition, the computer tapes and engineering drawing negatives are also retained at the Records Center.

All of the information included in the Records System is subdivided into one of these seven categories. This includes all of the Harza-Ebasco generated records as well as that of their subcontractors. To the extent that the information was readily available, the system also includes various categories of records from the Acres American, Inc. feasibility studies, and from previous studies by the U.S. Corps of Engineers and the U.S. Bureau of Reclamation.

The only Susitna related records that are not in the system are the Power Authority's correspondence files, and restricted archaeological documents. The file code index for the correspondence files may be input to the system at a later date. The archaeological information not in the system consists mostly of maps, reports on sites of historic significance, and artifacts. This information is restricted in accordance with Federal Law (Federal Archaeological Resources Protection Act 1979, Section 9A). Approval to access this information must be obtained from the Chief of the Office of History/Archaeology, Department of Natural Resources, Anchorage, Alaska.

Except as noted above, the Susitna records have been allocated to storage in one of three locations. Information intended for storage in Anchorage would

be located in the Power Authority's library. In fact this is the main location from which interested parties can gain information on all aspects of the disposition and location of Susitna related information. In addition to the Power Authority library, soil and core samples will be stored in a Power Authority warehouse to be located in Eagle River.

Information stored in Fairbanks is housed in the Rasmuson Library at the University of Alaska under the Polar Regions Archive section. The primary file category stored in the Rasmuson Library is the Data/Information file. This file contains massive volumes of original data that it is hoped can contribute to the research and educational needs of the University system. Hard copies of a majority of the project reports were also sent to the University Library.

Records located in Juneau are stored in either the State Archives system or in the State Records Center as appropriate. Those records contained in the State Archives are available to the general public although the information cannot be removed from the premises. Information contained in the Records Center is not available to the general public, however, individual requests for access to the data can be made to the Power Authority for their consideration. Records stored in the State Records Center are contained in cardboard boxes for a specified shelf life. At the end of a specified number of years the records will be destroyed unless the Power Authority requests that the retention period be extended.

COMPUTER OPERATING SYSTEM

System Overview

As discussed in a previous section, the database program chosen for the Susitna Records Management System is Rbase 5000. This program runs on an IBM or IBM compatible personal computer and requires approximately 15 MB of

disk space for the program and data associated with the Susitna Records Management System.

The Rbase 5000 program has a two-level hierachy structure comprised of: 1) Databases and 2) Tables. At the first level, the Susitna Records Management System has been divided into two databases: DOCCONA and DOCCONB. Database DOCCONA contains those records which are anticipated to be accessed or searched frequently, by a wide range of researchers. Database DOCCONB contains those records of limited general interest but of importance to the Power Authority. By dividing the records into these two databases, the Power Authority can more easily and economically distribute Susitna data of widespread interest to selected repository locations.

At the second level, the Susitna Records Management System is divided into several Tables under each database. As previously discussed, the files in the Records Management System were divided into seven categories. Each of the seven categories has a corresponding Table in one of the two databases. Actually, the correspondence category has five corresponding Tables - one for each year 1983 through 1987. The remaining categories have only one corresponding table each. The following are the tables associated with each of the databases:

DATABASE	TABLE
DOCCONA	DOCLOG (Documents)
	DATA (Data/information)
	PHOTOS (Aerial Photographs)
	DWGS (Maps and Drawings)

DATABASE	TABLE
DOCCONB	CORLOG83 (1983 Correspondence)
	CORLOG84 (1984 Correspondence)
	CORLOG85 (1985 Correspondence)
	CORLOG86 (1986 Correspondence)
	CORLOG87 (1987 Correspondence)
	FERC (FERC Requests and Power Authority Responses)
	ORIGINL (Report Originals)
	ACRONYMS (Acronym listing)
	KEYWORDS (Keyword listing)

The Rbase 5000 program is a relational information management type program which stores information within a Table in defined columns and rows. This allows a researcher to sort or select data based on defined column and row constraints. The information retrieval command to define these constraints and select from a table is composed of four parts:

1. Select
2. From
3. Sort (Optional)
4. Where (Optional)

The format for this command is as follows:

SELECT _____ FROM _____ SORTED BY _____ WHERE _____

The SELECT statement identifies which columns of data are desired. The FROM statement identifies which Table is being queried. The SORTED BY statement identifies the order in which the data are to appear. This statement is optional; if it is not used, the data will appear in the order it exists in the database. The WHERE statement identifies the specific data being requested. This statement is also optional; if it is not used, all of the

data in the table will be selected. Specific uses of the information retrieval command will be discussed in detail in following sections.

The most cumbersome step in the process of developing an information retrieval command is formatting the SELECT statement. This is especially true when repetitive searches are required to isolate information. To eliminate the need to redefine the SELECT statement for each retrieval command, Rbase has a provision for developing a predefined SELECT statement. This predefined SELECT statement is called a REPORT and is permanently stored in the database. In addition to the advantage of having a predefined SELECT statement, the REPORT also permits a title, date, page numbering, and a paginated output. This provides a consistent format for presenting the results of a search or other inquiry. A listing of the REPORTS associated with each Table in the Susitna Records Management System is shown in Appendix B. The formats for these REPORTS are shown in Appendix C.

Database Searches - General

As discussed above, selecting and formating data is accomplished using an information retrieval command. To simplify access to the information in the Susitna Records Management System using this command, REPORTS have been set up which contain predefined SELECT statements. Although a REPORT will automatically provide the SELECT statement and format the output, it will not, in itself, identify specific data within a database table - this requires a WHERE statement. In a WHERE statement one or more columns are targeted and the search constraints defined. As an example:

WHERE DATE** EQUALS 870101

targets the column DATE** and limits the data selected to those rows where the date equals January 1, 1987.

Although there are a significant number of possible data request formats, the following WHERE statement target columns are anticipated to comprise the primary database queries.

TABLE	TARGET COLUMN
DOCLOG (Documents)	Author
	Title
	Keywords
DATA	Company
	Descript (Description)
	Keyword
CORLOG (Correspondence)	Author
	Recipien (Recipient)
	Subject
	Task (Sequence)
PHOTOS	Descript (Description)
DRAWINGS	Title
FERC	Reqdate (Request Date)
	Subject
	Keywords
ORIGINL (Report Originals)	DCNO ** (Document Number)

Although these target columns will be the ones most commonly searched and are discussed in more detail in this report, the RBase 5000 program allows for substantial variability in search requests. It provides for this variability through the use of multiple WHERE statements. For example, the

first search listed above (asking for a particular author from the Table DOCLOG) can be constrained further by adding a WHERE statement for the DATE** column narrowing the search to a particular year. Multiple WHERE statements will be discussed in more detail in later sections.

In summary, the following general command format is used for most searches:

PRINT (REPORT) SORTED BY _____ WHERE _____

REPORT is a predefined SELECT statement for a particular Table and has a predefined output format (see Appendix C for the REPORT formats)

SORTED BY is an option. It is used to present the data in a specified order (eg. by number, title, author, date)

WHERE is also an option. It is used to limit the search to a specified data type and range (eg. date equals ___, author contains ___)

If no WHERE statement is used, all of the data in the associated Report Table will be selected and printed.

If no SORT statement is used, the data output will be in the order it appears in the computer file.

In defining the WHERE statement, one of two conditions will be used, "EQ" (equals) or "CONTAINS". When limiting a search by an integer column (eg. date, document number) the WHERE statement is defined using EQ. When limiting a search by a text column (eg. title, keyword) the WHERE statement is defined using CONTAINS. To determine whether the data in a column is an integer or text refer to the column listing for the specific Table being searched in Appendix D.

When the CONTAINS statement is used, the computer will search for the selected string of characters. The string does not have to be a complete word or group of words. The computer will try to match the string whether a single letter or a complete sentence. For example, to search the document database for all reports which contain GEO in the title:

PRINT DOC2 SORTED BY DCNO** WHERE TITLE CONTAINS GEO

The results of this search would include all reports sorted by document number (SORTED BY DCNO**) which contain the characters GEO in the title column (WHERE TITLE CONTAINS GEO). The results of this search would include listings which contain geotechnical, geologic, geology, geometrical, geo-hydrology, etc.

The EQUALS statement is used with integers and the results of the search provide only those listings which match exactly. For example, to search the document database for all reports published in May 1985:

PRINT DOC2 SORTED BY DCNO** WHERE DATE** EQ 850500

The results of this search would list only those reports where the date equals 850500. If there were other reports which had dates of 850517, 850501, etc., the listings would not be selected because the dates do not equal 850500. Note the symbol "=" can also be used in place of EQ.

When conducting multiple WHERE statement searches, the WHERE statements are separated by an AND or an OR. With the AND separator, both WHERE statements must be satisfied for data selection while the OR separator selects data on either WHERE statement condition. For example, to search for all reports written in May 1985:

PRINT DOC2 SORTED BY DCNO** WHERE DATE** GT 850430 AND DATE** LT 850601

The results of this search would include all reports sorted by document number (SORTED BY DCNO**) where the date is greater than (GT) April 30, 1985 and less than (LT) June 1, 1985 (WHERE DATE** GT 850430 AND DATE** LT 850601)

Searches are conducted by requesting information from any column in a specified Table. Each column has a name, type (integer or text) and field length. See Appendix D for column definitions.

Database Searches - System Commands

Details on how to conduct the "primary" searches previously listed are presented below. The command language to be entered into the computer is shown in ALL CAPS; any words or information in lower case characters or in initial caps only should not be entered into the computer. After a command is typed on the screen, a carriage return (<CR>) is used to initiate the command.

ENTER RBASE

1. Power up machine, monitor, and printer; Autoexec program will initiate operating system and menu program.

2. At the Menu screen (C prompt) type in R5K <CR>
   The RBase logo and command line will appear.

3. To enter the RBase command mode type R <CR>
   You will now see an R prompt rather than a C prompt.

4. To open either database DOCCONA or DOCCONB type in one of the following commands:

   a. OPEN DOCCONA <CR>
   b. OPEN DOCCONB <CR>

   The system will indicate that the database exists. You are now in the selected database and ready for conducting information searches.

EXIT RBASE

When database inquiries are completed, use the following procedure to exit Rbase.

1. Type EXIT <CR>
   This will take you back to the Rbase logo and command line.

2. Press the ESC key to return to the MENU.

ALWAYS EXIT THE RBASE 5000 PROGRAM PRIOR TO TURNING THE COMPUTER OFF.

SEARCH FOR DOCUMENTS BY AUTHOR

The following procedure can be utilized to search the Table DOCLOG (documents) by the column AUTHOR. The Table DOCLOG is searched using the Report labelled DOC2. The data output format for DOC2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DOC2 SORTED BY DCNO** WHERE AUTHOR CONTAINS XYZ <CR>

   This search will result in a listing in document number order (SORTED BY DCNO**) of all reports within the Table written by the author XYZ (WHERE AUTHOR CONTAINS XYZ). If you are unsure of the correct spelling of the author, check the acronym listing in Appendix E to ensure proper entry. As an added guide to help locate data by author, a listing of the major contractors and subcontractors who participated in the Susitna Project and a keyword or two describing their area of work is included as Appendix F. If no sort clause is used, the author listing order will be as existing in the database.

4. Type OUTPUT SCREEN <CR>

SEARCH FOR DOCUMENTS BY SUBJECT MATTER

TITLE. The following procedure can be utilized to search the Table DOCLOG (documents) by subject content in the column TITLE. The Table DOCLOG is searched using the Report labelled DOC2. The data output format for DOC2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DOC2 SORTED BY DCNO** WHERE TITLE CONTAINS XYZ <CR>

   This printout will result in a listing in document number order (SORTED BY DCNO**) of all reports in the Table which contain XYZ in the title (WHERE TITLE CONTAINS XYZ). For example, to obtain all reports which contain moose in the title:

   Type PRINT DOC2 SORTED BY DCNO** WHERE TITLE CONTAINS MOOSE <CR>

   If more than one word is used in the title search (eg. Devil Canyon) the search request must be placed in quotes. For example:

   Type PRINT DOC2 SORTED BY DCNO** WHERE TITLE CONTAINS "DEVIL CANYON" <CR>

4. Type OUTPUT SCREEN <CR>

KEYWORD. The following procedure can be utilized to search the Table DOCLOG (documents) by the column KEYWORDS. The table DOCLOG is searched using the Report labelled DOC2. The data output format for DOC2 is shown in Appendix C. A listing of keywords is shown in Appendix G.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DOC2 SORTED BY DCNO** WHERE KEYWORDS CONTAINS XYZ <CR>

   This search will result in a listing in document number order (SORTED BY DCNO**) of all reports within the Table which contain the keyword XYZ (WHERE KEYWORDS CONTAINS XYZ). If you are unsure of the correct spelling of the keyword, check the keyword listing in Appendix G to ensure proper entry. If no sort clause is used, the keyword listing order will be as existing in the database.

4. Type OUTPUT SCREEN <CR>

SEARCH FOR DOCUMENTS USING MULTIPLE WHERE STATEMENTS

AND. The following procedure can be utilized to search the Table DOCLOG (documents) by multiple subject requests (Multiple WHERE statements) using any column or combination of columns. The Table DOCLOG is searched using the Report labelled DOC2. The data output format for DOC2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DOC2 SORTED BY DCNO** WHERE AUTHOR CONTAINS ABC AND TITLE CONTAINS XYZ <CR>

   This search will result in a listing in document number order (SORTED BY DCNO**) of all reports within the Table written by the author ABC (WHERE AUTHOR CONTAINS ABC) and where the title contains XYZ (WHERE TITLE CONTAINS XYZ).

4. **Type OUTPUT SCREEN <CR>**

OR. The following procedure can be utilized to search the Table DOCLOG (documents) by multiple subject requests (Multiple WHERE statements) using any column or combination of columns. The Table DOCLOG is searched using the Report labelled DOC2. The data output form for DOC2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file (this is done while in DOS).

3. Type PRINT DOC2 SORTED BY DCNO** WHERE TITLE CONTAINS "UVW XYZ" OR TITLE CONTAINS ABC <CR>

   This search will result in a listing in document number order (SORTED BY DCNO**) of all reports within the Table whose title contains UVW XYZ (TITLE CONTAINS "UVW XYZ") or ABC (TITLE CONTAINS ABC). If no sort clause is used, the title listing order will be as existing in the database.

4. Type OUTPUT SCREEN <CR>

SEARCH FOR DATA BY SUBJECT MATTER

COMPANY. The following procedure can be utilized to search the Table DATA (information/data) by the column COMPANY. As an added guide to help locate data by company, a listing of major contractors and subcontractors who participated in the Susitna Project and a keyword or two describing their area of work is included as Appendix F. The Table DATA is searched using the Report labelled DATA2. The data output format for DATA2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DATA2 SORTED BY BOX-NO FILE-NO WHERE COMPANY CONTAINS XYZ <CR>

   This search will result in a listing sorted by box number and subsorted by file number (SORTED BY BOX-NO FILE-NO) of the data within the Table **which contain the company XYZ (WHERE COMPANY CONTAINS XYZ).**

4. **Type OUTPUT SCREEN <CR>**

KEYWORD. The following procedure can be utilized to search the Table DATA (information/data) by the column KEYWORD. The Table DATA is searched using the Report labelled DATA2. The data output format for DATA2 is shown in Appendix C. A listing of keywords is shown in Appendix G.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR> where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DATA2 SORTED BY BOX-NO FILE-NO WHERE KEYWORD CONTAINS XYZ <CR>

   This printout will result in a listing sorted by box number and sub-sorted by file number (SORTED BY BOX-NO FILE-NO) of all data in the Table which contain XYZ in the keywords (WHERE KEYWORD CONTAINS XYZ). For example, to obtain all data which contain borehole as a keyword:

   Type PRINT DATA2 SORTED BY BOX-NO FILE-NO WHERE KEYWORD CONTAINS BOREHOLE <CR>

   If more than one word is used in the keyword search (eg. "computer run") the search request is placed in quotes.

   Type PRINT DATA2 SORTED BY BOX-NO FILE-NO WHERE KEYWORD CONTAINS "COMPUTER RUN" <CR>

4. Type OUTPUT SCREEN <CR>

SEARCH FOR DATA USING MULTIPLE WHERE STATEMENTS

OR. The following procedure can be utilized to search the Table DATA for subject matter that may appear in two separate columns (MULTIPLE WHERE CLAUSES). The Table DATA is searched using the Report labelled DATA2. The data output form for DATA2 is shown in Appendix C.

1. Type OPEN DOCCONA <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR> where FILE is any file name desired. To print a file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Type PRINT DATA2 SORTED BY BOX-NO FILE-NO WHERE KEYWORD CONTAINS XYZ OR DESCRIPT CONTAINS XYZ <CR>

   This printout will result in a listing sorted by box number and sub-sorted by file number (SORTED BY BOX-NO FILE-NO) of all data within the table which contain the keyword XYZ or contain XYZ in the description (WHERE KEYWORDS CONTAINS XYZ OR DESCRIPT CONTAINS XYZ). If you are unsure of the correct spelling of a keyword or description, check the keyword listing to ensure proper entry. If no sort clause is used, the listing order of the output will be as existing in the database.

4. Type OUTPUT SCREEN <CR>

SEARCH FOR CORRESPONDENCE BY SUBJECT MATTER

The following procedure can be utilized to search the table CORLOG__ (correspondence) by the column SUBJECT. The Table CORLOG__ is searched using the Report labelled CORR___ (insert applicable year to be searched). The data output formats for CORR___ are shown in Appendix C.

1. Type OPEN DOCCONB <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Determine report to be used. Report options are:

REPORT	TABLE	
CORR83	CORLOG83	Correspondence log for 1983
CORR84	CORLOG84	Correspondence log for 1984
CORR85	CORLOG85	Correspondence log for 1985
CORR86	CORLOG86	Correspondence log for 1986
CORR87	CORLOG87	Correspondence log for 1987

4. Type PRINT CORR83 SORTED BY LTNO** WHERE SUBJECT CONTAINS XYZ <CR>

   This search will result in a listing of correspondence for the year 1983 in letter number order (SORTED BY LTNO**) of all correspondence within the Table which contain the subject XYZ (WHERE SUBJECT CONTAINS

XYZ). If no sort clause is used, the subject listing order will be as existing in the database.

5. Type OUTPUT SCREEN <CR>

SEARCH FOR CORRESPONDENCE BY AUTHOR

The following procedure can be utilized to search the Table CORLOG (correspondence) by the column AUTHOR. The Table CORLOG is searched using the Report labelled CORR___ (insert applicable year to be searched). The data output formats for CORR___ are shown in Appendix C.

1. Type OPEN DOCCONB <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>

   This will send the results of the search directly to the printer. To save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Determine report to be used. Report options are:

REPORT	TABLE	
CORR83	CORLOG83	Correspondence log for 1983
CORR84	CORLOG84	Correspondence log for 1984
CORR85	CORLOG85	Correspondence log for 1985
CORR86	CORLOG86	Correspondence log for 1986
CORR87	CORLOG87	Correspondence log for 1987

4. Type PRINT CORR84 SORTED BY LTNO** WHERE AUTHOR CONTAINS XYZ <CR>

   This printout will result in a listing of correspondence for the year 1984 in letter number order (SORTED BY LTNO**) where XYZ is the author (WHERE AUTHOR CONTAINS XYZ).

For example, to obtain all correspondence from the year 1985 where the author is Ferguson:

Type PRINT CORR85 SORTED BY LTNO** WHERE AUTHOR CONTAINS FERGUSON <CR>

5. Type OUTPUT SCREEN <CR>

SEARCH FOR CORRESPONDENCE BY MULTIPLE CLAUSE
TASK SEQUENCE

The following procedure can be utilized to search the Table CORLOG (correspondence) by the columns TN, STN, ITN, and SIN (collectively referred to as the task sequence). The file code index shown in Appendix H identifies the task sequence numbers. Since the task sequence numbers in the file code index essentially identify subject categories, this search procedure is a subject search of the correspondence files. The Table CORLOG is searched using the Report labelled CORR___ (insert applicable year to be searched). The data output formats for CORR___ are shown in Appendix C.

1. Type OPEN DOCCONB <CR> (if not already open)

2. Type OUTPUT PRINTER <CR>
   This will send the results of the search directly to the printer. to save the results of the search in a file for later analysis, type OUTPUT FILE.RBS <CR>, where FILE is any file name desired. To print the file, enter DOS and type PRINT FILE.RBS <CR>. When the file is no longer needed, enter DOS and type DEL FILE.RBS <CR> to remove the file.

3. Determine report to be used. Report options are:

REPORT	TABLE
CORR83	CORLOG83
CORR84	CORLOG84
CORR85	CORLOG85
CORR86	CORLOG86
CORR87	CORLOG87

4. Type PRINT CORR83 SORTED BY LTNO** WHERE TN = _ AND STN = _ AND ITN = _ <CR>

This printout will result in a listing of correspondence for the year 1983 in letter number order (SORTED BY LTNO**) where the task sequence matches the order requested (WHERE TN = __ AND STN = __ AND ITN = __). For example, to obtain all correspondence for the year 1985 for file code 2.3.6:

Type PRINT CORR85 SORTED BY LTNO** WHERE TN = 2 AND STN = 3 AND ITN = 6 <CR>

5. Type OUTPUT SCREEN <CR>

APPENDIX A

APPENDIX A

SYSTEM STORAGE BY FILE

File Contents	Location: Anchorage APA	Juneau ARCH	Juneau REC	Fairbanks UAF
Documents				
Hardcopy	X			X (part.)
Microfilm	X	X		X
Rb5000	X	X		X
Correspondence				
Hardcopy				
Microfilm	X		X	
Rb5000	X		X	
Data/Information				
Hardcopy				X
Microfilm	X	X		
Rb5000	X	X		X
FERC Requests/Responses				
Hardcopy			X	
Microfilm	X		X	
Rb5000	X		X	
Photographs				
Hardcopy				X
Microfilm				
Rb5000	X	X		X
Maps/Drawings				
Hardcopy				X
Aperture Cards	X	X*		
Rb5000	X	X		X
Report Originals				
Hardcopy			X	
Microfilm				
Rb5000	X		X	

Legend:

APA: Alaska Power Authority
Arch: State Archives
Rec: State Records Center

Notes:

Photograph negatives stored at North Pacific Areal Survey
Vegetative mapping negatives to be stored by U.S. Geological Survey (NICI)

* Juneau will have reel film for the maps and drawings

REPOSITORY CONTACT LIST

- State of Alaska, Department of Education
  Archives and Record Management
  141 Willoughby Avenue
  Juneau, Alaska 99801

  Contact: Records Analyst
  (907) 465-2276

  Mail: P.O. Box C-0207
  Juneau, Alaska 99811

- Alaska and Polar Regions Department
  Elmer E. Rasmuson Library
  310 Tanana Drive
  University of Alaska - Fairbanks
  Fairbanks, Alaska 99775-1005

  Contact: Archivist
  (907) 474-7261

- Alaska Power Authority
  701 East Tudor Road
  P.O. Box 190869
  Anchorage, Alaska 99519-0869

  Contact: Librarian
  (907) 561-7877

APPENDIX B

APPENDIX B

LISTING OF REPORTS

DATABASE - DOCCONA

REPORT	TABLE	DESCRIPTION
DATA1	DATA	Listing of Data/information files showing all columns associated with table DATA sorted by box number and file number*
DATA2	DATA	Listing of results from a data/information search showing all columns associated with table DATA sorted by box number and file number*
DOC1	DOCLOG	Document listing all columns associated with table DOCLOG sorted by document number or author
DOC2	DOCLOG	Listing of results of a document search sorted by document number or author
DWGS1	DWGS	Listing of drawing files (including maps) sorted by box number and drawing number, date, source, and title
PHOTO1	PHOTOS	Listing of aerial photographs and slides sorted by box number and file number

---

* The structure of both DATA1 and DATA2 are identical, the only difference between the two reports is the title. DATA2 is used to present the results of a search. DATA1 is used for a formal printout of the entire table contents.

DATABASE - DOCCONB

REPORT	TABLE	DESCRIPTION
ACRO1	ACRONYMS	Listing of all acronymn affiliations in either database sorted alphabetically
CORR83	CORLOG83	Listing of all project-related correspondence files during the year 1983 sorted by letter number
CORR84	CORLOG84	Listing of all project-related correspondence files during the year 1984 sorted by letter number

REPORT	TABLE	DESCRIPTION
CORR85	CORLOG85	Listing of all project-related correspondence files during the year 1985 sorted by letter number
CORR86	CORLOG86	Listing of all project-related correspondence files during the year 1986 sorted by letter number
CORR87	CORLOG87	Listing of all project-related correspondence files during the year 1987 sorted by letter number
FERC1	FERCH	Listing of all FERC requests/responses sorted by request date
KEY	KEYWORDS	Listing of keyword file sorted alphabetically
ORIGINL1	ORIGINL	Listing of report originals file available for reprinting showing document number, author, title and report date

APPENDIX C

APPENDIX C

REPORT FORMATS

SUSITNA HYDROELECTRIC PROJECT
DATA/INFORMATION FILES

DATE:
PAGE:

BOX NUMBER	FILE NUMBER	COMPANY	DESCRIPTION	KEYWORDS

SUSITNA HYDROELECTRIC PROJECT
RESULTS OF DATA/INFORMATION SEARCH

DATE:
PAGE:

BOX NUMBER	FILE NUMBER	COMPANY	DESCRIPTION	KEYWORDS

SUSITNA HYDROELECTRIC PROJECT
DOCUMENT LISTING SORTED BY AUTHOR

DATE:
PAGE:

DCNO	AUTHOR	TITLE	PRJ-RPT	DATE	PAGES	KEYWORDS	LOCATION	DISTRIBUTION	REFERENCE	RESTRICT

SUSITNA HYDROELECTRIC PROJECT
RESULTS OF DOCUMENT SEARCH

DATE:
PAGE:

DOCUMENT NUMBER	AUTHOR	TITLE	DATE	KEYWORDS

SUSITNA HYDROELECTRIC PROJECT
DRAWINGS FILES

DATE:
PAGE:

BOX NUMBER	DRAWING NUMBER	DATE	SOURCE	TITLE

SUSITNA HYDROELECTRIC PROJECT
AERIAL PHOTOGRAPH FILES

DATE:
PAGE:

BOX NUMBER	FILE NUMBER	DESCRIPTION

SUSITNA HYDROELECTRIC PROJECT
ACRONYM AFFILIATIONS

DATE:
PAGE:

ACRONYM	AFFILIATION

SUSITNA HYDROELECTRIC PROJECT
CORRESPONDENCE FILE FOR 1983

DATE:

PAGE NO.:

LTNO	TN	STN	ITN	SIN	DATELT	DTRECV	AUTHOR	ATHRAFFL	RECIPINT	RECPAFL	SUBJECT

SUSITNA HYDROELECTRIC PROJECT
CORRESPONDENCE FILE FOR 1984

DATE:

PAGE NO.:

LTNO	TN	STN	ITN	SIN	DATELT	DTRECV	AUTHOR	ATHRAFFL	RECIPINT	RECPAFL	SUBJECT

SUSITNA HYDROELECTRIC PROJECT
CORRESPONDENCE FILE FOR 1985

DATE:

PAGE NO.:

LTNO	TN	STN	ITN	SIN	DATELT	DTRECV	AUTHOR	ATHRAFFL	RECIPINT	RECPAFL	SUBJECT

SUSITNA HYDROELECTRIC PROJECT
CORRESPONDENCE FILE FOR 1986

DATE:

PAGE NO.:

LTNO	TN	STN	ITN	SIN	DATELT	DTRECV	AUTHOR	ATHRAFFL	RECIPINT	RECPAFL	SUBJECT

SUSITNA HYDROELECTRIC PROJECT
CORRESPONDENCE FILE FOR 1987

DATE:

PAGE NO.:

LTNO	TN	STN	ITN	SIN	DATELT	DTRECV	AUTHOR	ATHRAFFL	RECIPINT	RECPAFL	SUBJECT

SUSITNA HYDROELECTRIC PROJECT
LISTING OF FERC REQUESTS/RESPONSES

DATE:
PAGE:

REQUEST DATE	REQUEST IDENT	LETTER NUMBER	AUTHOR	SUBJECT	KEYWORDS	RESPONSE TO FERC	NOTICE TO INTERVENORS	STATUS

SUSITNA HYDROELECTRIC PROJECT
KEYWORD FILE

DATE:
PAGE:

KEYWORDS

SUSITNA HYDROELECTRIC PROJECT
REPORT ORIGINALS FILE

DATE:
PAGE:

DOCUMENT NUMBER	AUTHOR	TITLE	REPORT DATE

APPENDIX D

APPENDIX D

STRUCTURE OF RBASE TABLES

DATABASE - DOCCONA (DOCUMENT CONTROL A)

1. **Table - DOCLOG (Document Log)**

Column Name	Type	Length
1 DCNO**	INTEGER	1 value(s)
2 AUTHOR	TEXT	12 characters
3 TITLE	TEXT	150 characters
4 PUBLISHE	TEXT	12 characters
5 DATE**	INTEGER	1 value(s)
6 PAGES	INTEGER	1 value(s)
7 KEYWORDS	TEXT	60 characters
8 LOCATION	TEXT	60 characters
9 DISTRIBU	TEXT	60 characters
10 REFER	TEXT	60 characters
11 RESTRICT	TEXT	60 characters

2. **Table - DATA**

Column Name	Type	Length
1 BOX-NO	INTEGER	1 value(s)
2 FILE-NO	INTEGER	1 value(s)
3 COMPANY	TEXT	12 characters
4 DESCRIPT	TEXT	180 characters
5 KEYWORD	TEXT	72 characters

3. **Table - PHOTOS (Aerial Photographs & Slides)**

Column Name	Type	Length
1 BOX-NO	INTEGER	1 value(s)
2 FILE-NO	INTEGER	1 value(s)
3 DESCRIPT	TEXT	180 characters

4. Table - DWGS (Project Drawings)

Column Name	Type	Length
1 BOX-NO	INTEGER	1 value(s)
2 DWG-NO	TEXT	12 characters
3 DATE**	INTEGER	1 value(s)
4 SOURCE	TEXT	36 characters
5 TITLE	TEXT	150 characters

DATABASE - DOCCON B (DOCUMENT CONTROL B)

1. **Table - CORLOG83 (Correspondence 1983)**

Column Name	Type	Length
1 LTNO**	INTEGER	1 value(s)
2 TN	INTEGER	1 value(s)
3 STN	INTEGER	1 value(s)
4 ITN	INTEGER	1 value(s)
5 SIN	INTEGER	1 value(s)
6 DATELT	INTEGER	1 value(s)
7 DTRECV	INTEGER	1 value(s)
8 AUTHOR	TEXT	12 characters
9 ATHRAFFL	TEXT	12 characters
10 RECIPIEN	TEXT	12 characters
11 RECPAFFL	TEXT	12 characters
12 SUBJECT	TEXT	120 characters

NOTE: Tables CORLOG84, CORLOG85, CORLOG86, and CORLOG87 are configured identical to CORLOG83

2. **Table - ACRONYMS**

Column Name	Type	Length
1 ACRONYM	TEXT	12 characters
2 DEFINE	TEXT	120 characters

3. **Table - KEYWORDS**

Column Name	Type	Length
1 KEYWORD	TEXT	12 characters

4. **Table - ORIGINL (Report Originals)**

Column Name	Type	Length
1 DCNO**	INTEGER	1 value(s)
2 AUTHOR	TEXT	12 characters
3 TITLE	TEXT	150 characters
4 DATE**	INTEGER	1 value(s)

5. Table - FERC (FERC Historical Data)

Column Name	Type	Length
1 REQDATE	INTEGER	1 value(s)
2 REQIDENT	TEXT	12 characters
3 LTNO**	INTEGER	1 value(s)
4 AUTHOR	TEXT	12 characters
5 SUBJECT	TEXT	120 characters
6 KEYWORDS	TEXT	60 characters
7 RES-FERC	TEXT	18 characters
8 NOTE-INV	TEXT	24 characters
9 STATUS	TEXT	120 characters

APPENDIX E

APPENDIX E

ACRONYM LISTING

ACRONYM	DEFINITION
A-T	ASHTON-TATE
ABR	ALASKA BIOLOGICAL RESEARCH
ACDP	ALASKA CONSUMER ADVOCACY PROGRAM
ACOHP	ADVISORY COUNCIL ON HISTORIC PRESERVATION (NATIONAL)
ACRES	ACRES INTERNATIONAL CORPORATION
ACSPF	ALASKA CENTER FOR POLICY STUDIES
ACST	ALASKA COUNCIL ON SCIENCE & TECHNOLOGY
ACWRU	ALASKA COOPERATIVE WILDLIFE RESEARCH UNIT
ADF&G	ALASKA DEPARTMENT OF FISH AND GAME
ADH	ALASKA DEPARTMENT OF HIGHWAYS
ADN	ANCHORAGE DAILY NEWS
AEAI	APPLIED ECONOMICS ASSOCIATES, INC.
AEI	ALASKA ECONOMIC, INC.
AEIDC	ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER
AFR	ACE-FEDERAL REPORTERS, INC.
AG	ARTIC GLASS
AGA	AMERICAN GAS ASSOCIATION
AGRA	ARCTIC GEOLOGICAL RESOURCE ASSOCIATION
AHRG	ALASKA HERITAGE RESEARCH GROUP, INC.
AHTNA	AHTNA DEVELOPMENT CORPORATION
AIM	APPLIED INFORMATION MANAGEMENT
AIRGUIDE	ALASKA AIR GUIDES
AIRLOG	AIR LOGISTICS OF ALASKA, INC.
AJC	ANCHORAGE JOURNAL OF COMMERCE
AKHEL	ALASKA HELICOPTERS, INC.
AKLIB	ALASKA STATE LIBRARY
ALASKARCTIC	ALASKA ARCTIC
ALM	ALASKA LAND MANAGERS
ALUC	ALASKA LAND USE COUNCIL
ANL	ARGONNE NATIONAL LABORATORY
ANRE	AGENCY OF NATURAL RESOURCES AND ENERGY
ANS	ARMY & NAVY SURPLUS
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AOCM	ALASKA OFFICE OF COASTAL MANAGEMENT
AOSERP	ALBERTA OIL SANDS ENVIRONMENTAL RESEARCH PROGRAM
AOU	AMERICAN ORNITHOLOGISTS' UNION
APA	ALASKA POWER AUTHORITY
APB	ALASKA PACIFIC BANCORPORATION
ARCTEC	ARCTEC ALASKA INCORPORATED
ARDC	ALASKA RESOURCE DEVELOPMENT COUNCIL

APPENDIX E

ACRONYM LISTING

ACRONYM	DEFINITION
ARERC	ANCHORAGE REAL ESTATE RESEARCH COMMITTEE
ARG&F	ARKANSAS GAME & FISH
ASCC	ALASKA SYSTEMS CO-ORDINATING COUNCIL
ASL	ALASKA STATE LEGISLATURE
AT	ANCHORAGE TIMES
AWL	AGE WEIGHT LENGTH
B&M	BURNS & MCDONNELL
B&T	BARLOW & TUSSING
BAH	BOOZ, ALLEN & HAMILTON
BAKER	MICHAEL BAKER JR., INC.
BATTELLE	BATTELLE PACIFIC NORTHWEST LABORATORIES
BCC	BELUGA COAL COMPANY
BCS	BOEING COMPUTER SERVICES
BEA	BUREAU OF ECONOMIC ANALYSIS
BECHTEL	BECHTEL CORPORATION, BECHTEL CIVIL & MINERALS, INC.
BECK	R.W. BECK & ASSOCIATES
BELL	MILO BELL
BERRY	THEODORE BERRY & ASSOCIATES
BHBP&A	BIRCH, HORTON, BITTNER, PESTINGER AND ANDERSON
BLM	BUREAU OF LAND MANAGEMENT
BLS	BUREAU OF LABOR STATISTICS
BOM	BUREAU OF MINES
BOR	BUREAU OF RECLAIMATION
BPA	BONNEVILLE POWER ADMINISTRATION
BRAUND	STEPHEN R. BRAUND & ASSOCIATES
C&C	CHAN AND CHAU
CA	COMMONWEALTH ASSOCIATES
CADG	COMPUTER-AIDED DESIGN GROUP
CAIN	CAIN SERVICE COMPANY
CAL/BREA	CAL-BREA GEOLOGICAL SERVICES
CALKINS	CALKINS/SHEN
CBJWC	COLDWELL BANKER/JACK WHITE CO.
CC	CAPTAIN COOK
CEA	CHUGACH ELECTRIC ASSOCIATION
CEC	CALIFORNIA ENERGY COMMISSION
CERS	CHUGIAK-EAGLE RIVER STAR (NEWSPAPER)
CF	CONSOLIDATED FREIGHTWAYS
CFMP	COPPER FIRE MANAGEMENT PLAN
CI	CRITERION, INC.
CIAA	COOK INLET AQUACULTURE ASSOCIATION
CIRI	COOK INLET REGION, INC.

APPENDIX E

ACRONYM LISTING

ACRONYM	DEFINITION
CIRI/H&N	CIRI, HOLMES AND NARVER
CIRI/PAI	CIRI, PLACER AMEX, INC.
CIRPT	COOK INLET REGIONAL PLANNING TEAM
CMJV	CIRI, MOOLIN JOINT VENTURE
COE	CORPS OF ENGINEERS
CP	COMMERCIAL PROPERTIES
CPUE	CATCH PER UNIT EFFORT
CRL	CANADIAN RESOURCE LIMITED
CRREL	COLD REGIONS RESEARCH AND ENGINEERING LABORATORY
CTF	COAL TASK FORCE
CWT	CODED WIRE TAG
D&L	DRYDEN & LARUE
D&M	DAMES & MOORE
DACC	DIAMOND ALASKA COAL COMPANY
DBM	DIVISION OF BUDGET AND MANAGEMENT
DCED	DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT
DCRA	DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS
DEC	DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DEIS	DRAFT ENVIRONMENTAL IMPACT STATEMENT
DEKIN	A.A. DEKIN, JR.
DENALI	DENALI DRILLING, INC.
DEPD	DIVISION OF ENERGY AND POWER DEVELOPMENT
DEUGAW	CHING CHA DEUGAW
DFO	DEPARTMENT OF FISHERIES AND OCEANS, CANADA
DIHAB	DIET HABITAT
DLA	DRAFT LICENSE AMENDMENT
DNR	DEPARTMENT OF NATURAL RESOURCES
DOA	DEPARTMENT OF AGRICULTURE
DOAD	DEPARTMENT OF ADMINISTRATION
DOC	DEPARTMENT OF COMMERCE
DOE	DEPARTMENT OF ENERGY
DOI	DEPARTMENT OF THE INTERIOR
DOL	DIVISION OF LABOR
DOR	DEPARTMENT OF REVENUE
DOSP	STATE OF ALASKA DIVISION OF STRATEGIC PLANNING
DOT	DEPARTMENT OF TRANSPORTATION

APPENDIX E

ACRONYM LISTING

ACRONYM	DEFINITION
DOTPF	ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
DOWL	DOWL ENGINEERS
DP	DATA PROCESSING
DPDF	DIVISION OF POLICY DEVELOPMENT & FINANCE
DPDP	DIVISION OF POLICY DEVELOPMENT AND PLANNING
DRI	DATA RESOURCES INC.
DRI/RPA	DENVER RESEARCH INSTITUTE AND RESOURCE PLANNING ASSOCIATES
E&A	ERICKSON AND ASSOCIATES
EAI	ECOLOGICAL ANALYSIS
EBASCO	EBASCO SERVICES, INC.
EDAW	EDAW INC.
EDC	EXPLORATION DATA CONSULTANTS, INC.
EIA	ENERGY INFORMAION ADMINISTRATION
ENTRIX	ENTRIX, INC.
ENV	ENVIROSPHERE
EP	ENERGY PROBE
EPRI	ELECTRIC POWER RESEARCH INSTITUTE
ERB	EXTERNAL REVIEW BOARD
ERC	ENERGY RESOURCES COMPANY
ERDA	ENVIRONMENTAL RESEARCH & DEVELOPMENT ASSOCIATES
ERP	EXTERNAL REVIEW PANEL
ERT	ENVIRONMENTAL RESEARCH & TECHNOLOGY, INC.
ERTEC	EARTH TECHNOLOGY CORPORATION
ESRI	ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE
ESSA	ENVIRONMENTAL AND SOCIAL SYSTEMS ANALYSIS LTD
EWTA	E. WOODY TRIHEY & ASSOCIATES
FDA	FAIRBANKS DEVELOPMENT AUTHORITY
FDNM	FAIRBANKS DAILY NEWS MINER
FDS	FISH DISTRIBTUION STUDY
FEIS	FINAL ENVIRONMENTAL IMPACT STATEMENT
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FERC	FEDERAL ENERGY REGULATORY COMMISSION
FMAA	FRANK MOOLIN AND ASSOCIATES
FMATS	FAIRBANKS METROPOLITAN AREA TRANSPORTATION STUDY
FMUS	FAIRBANKS MUNICIPAL UTILITY SYSTEM

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ACRONYM LISTING

ACRONYM	DEFINITION
FNSB	FAIRBANKS NORTH STAR BOUROUGH
FOA	FRANK ORTH AND ASSOCIATES
FOCC	FEDERATION OF COMMUNITY COUNCIL
FPCS	FEDERAL POWER COMMISSION STAFF
FRBC	FISHERIES RESEARCH INSTITUTE, UNIVERSITY OF WASHINGTON
FRI	FISHERIES RESEARCH BOARD OF CANADA
FRONT	FRONTIERSMAN, THE
GAO	GENERAL ACCOUNTING OFFICE
GATES	GATES ENGINEERING COMPANY
GE	GENERAL ELECTRIC
GEC	GOVERNOR'S ECONOMIC COMMITTEE
GHA	GORDON HARRISON & ASSOCIATES
GILBERT	GILBERT/COMMONWEALTH
GLGA	GREAT LAND GENERAL AGENCY
GO	GOSINK - OSTERKEMP
GSNA	GOLDCREEK SUSITNA NATIVE ASSOCIATION
GSP	GROSS STATE PRODUCT
GVEA	GOLDEN VALLEY ELECTRIC ASSOCIATION
HAMBLIN	PAUL HAMBLIN
HARZA	HARZA ENGINEERING COMPANY
HCA	HART-CROWSER & ASSOCIATES
HE	HARZA-EBASCO SUSITNA JOINT VENTURE
HENDRON	ALFRED J. HENDRON
HI	HOMESTEAD INSURANCE
HIBA	HOMESTEAD INSURANCE BROKERS OF ALASKA
HIGHLAKE	HIGHLAKE LODGE
HLA	HARDING-LAWSON AND ASSOCIATES
HNTB	HOWARD, NEEDLES, TAMMON & BERGENDOFF
HRA	HISTORICAL RESEARCH ASSOCIATES
HRI	HISTORICAL RESEARCH, INC.
HRPI	HUMAN RESOURCES PLANNING INSTITUTE
HRS	HYDRO RESEARCH SCIENCE
HYDEX	HYDEX CORPORATION
IECO	INTERNATIONAL ENGINEERING COMPANY, INC.
IEI	INTERSTATE EXPLORATION, INC.
IFE	INSTREAM FLOW ELEVATION
IFG	INSTREAM FIELD GUIDE
IFIM	INSTREAM FLOW INCREMENTAL METHODOLOGY
IFR	INSTREAM FIELD REPORT
IFRR	INSTREAM FLOW RELATIONSHIP REPORT
IIHR	IOWA INSTITUTE OF HYDRAULIC RESEARCH, UNIVERSITY OF IOWA
INF	INSTITUTE OF NORTHERN FORESTRY

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ACRONYM LISTING

ACRONYM	DEFINITION
IRB	INTERNAL REVIEW BOARD
ISER	INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH
IWR	INSTITUTE OF WATER RESEARCH (UNIVERSITY OF ALASKA)
J&J	JONES AND JONES
JAHS	JUVENILE ANADROMOUS HABITAT SITES
JGC	JOHN GRAHAM COMPANY
JTI	JAPANESE TRADE & INDUSTRY
JWC	JACK WHITE COMPANY
K2	K2 AVIATION, INC.
KCM	KRAMER, CHIN AND MAYO
KESSEL	B. KESSEL
KREIG	R.A. KREIG AND ASSOCIATES
LAI	LANDTECH-ALASKA, INC.
LFSI	LANDFIELD SERVICES, INC.
LGL	LGL ASSOCIATES
LIBRA	LIBRA PROGRAMMING INC.
LUPC	LAND USE PLANNING COUNCIL
MAC	MANAGEMENT ANALYSIS COMPANY
MATSU	MATANUSKA-SUSITNA BOROUGH
MEA	MATANUSKA ELECTRIC ASSOCIATION
MIT	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
MJA	MUNDY, JARVIS & ASSOCIATES
ML&P	ANCHORAGE MUNICIPAL LIGHT AND POWER DEPARTMENT
MMS	MINERALS MANAGEMENT SERVICE
MOA	MUNICIPALITY OF ANCHORAGE
MRC	MCLEAN RESEARCH CENTER
MRI	MITSUBISHI RESEARCH INSTITUTE
MSI	MANAGEMENT SERVICES INTERNATIONAL, INC.
MSU	MISSISSIPPI STATE UNIVERSITY
MWR	MOUNTAIN WEST RESEARCH, INC.
NAEC	NORTHERN ALASKA ENVIRONMENTAL CENTER
NAS	NATIONAL ACADEMY OF SCIENCES
NASA	NATIONAL AERONAUTICS & SPACE ADMINISTRATION
NBA	NATIONAL BANK OF ALASKA
NBER	NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.
NCA	NATIONAL COAL ASSOCIATION
NEBC	NATIONAL ENERGY BOARD OF CANADA
NERA	NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC.

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ACRONYM LISTING

ACRONYM	DEFINITION
NERC	NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL
NES	NORTHERN ENGINEERING SERVICES
NMFS	NATIONAL MARINE FISHERIES SERVICE
NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NPPC	NORTHWEST POWER PLANNING COUNCIL
NPS	NATIONAL PARK SERVICE
NRC	NUCLEAR REGULATORY COMMISSION
NRCC	NATIONAL RESEARCH COUNCIL CANADA
NRPC	NATIONAL RAILWAY PUBLICATION COMPANY
NSF	NATIONAL SCIENCE FOUNDATION
NTIS	NATIONAL TECHNICAL INFORMATION SERVICE
O&GCC	OIL & GAS CONSERVATION COMMISSION
OCM	OFFICE OF COASTAL MANAGEMENT
ODF&W	OREGON DEPARTMENT OF FISH & WILDLIFE
OFR	OFFICE OF FEDERAL REGISTER
OMB	OFFICE OF BUDGET MANAGEMENT
ORB	ORB ORGANIZATION
ORNL	OAK RIDGE NATIONAL LABORATORY
OTA	OFFICE OF TECHNOLOGY ASSESSMENT
PAI	PLACER AMEX, INC.
PAL	POLICY ANALYSIS, LIMITED
PC	PENINSULA CLARION
PCS	PC SOURCE
PGEC	PACIFIC GAS & ELECTRIC, CALIFORNIA
PIRF	PETROLEUM INDUSTRY RESEARCH FOUNDATION, INC.
PJI	PENNY AND JENSON INC.
PMOA	PIPE MANUFACTURES OF ALASKA
PMS	PILLSBURY, MADISON AND SUTRO
PN&D	PERATROVICH, NOTTINGHAM & DRAGE, INC.
PRA	PENINSULA RESOURC AREA
PSD	PREVENTION OF SIGNIFICANT DETERIORATION
PSDI	PROJECT SOFTWARE & DEVELOPMENT, INC.
PW	PRINTER'S WORKSHOP
R&M	R&M ASSOCIATES
RBA	RAJ BHARGAVA ASSOCIATES
RCI	RESOURCE CONSULTANTS, INC.
RDC	RESOURCE DEVELOPMENT COUNCIL
REAUME	REAUME CONSULTING
RJHAB	RESIDENT JUVENILE HABITAT MODEL
RME	ROCKY MT. ENERGY
RPT	REPORT

APPENDIX E

ACRONYM LISTING

ACRONYM	DEFINITION
RRCS	RENEWABLE RESOURCES CONSULTING SERVICES LTD.
RRFI	RAPTOR RESEARCH FOUNDATION, INC.
RSI	REED STENHOUSE, INC.
RTI	RESEARCH TRIANGLE INSTITUTE
S&W	STONE & WEBSTER
SA	SWEENEY ASSOCIATES
SADAR	SADAR COMPANY, THE
SCEC	SOUTHERN CALIFORNIA EDISON COMPANY
SDGEC	SAN DIEGO GAS & ELECTRIC CALIFORNIA
SEED	H. BOLTON SEED
SFH	SELECTED FISH HABITAT
SHCA	SHERMAN H. CLARK ASSOCIATES
SHEN	SHEN
SHPO	STATE HISTORIC PRESERVATION OFFICE
SIR	SCIENTIFIC INFORMATION RETRIEVAL
SNTEMP	STREAM TEMPERATURE MODEL
SOA	STATE OF ALASKA
SOWDOF	STATE OF WASHINGTON DEPT. OF FISHERIES
SPDDAC	STATE PUBLICATIONS DISTRIBUTION AND DATA ACCESS CENTER
SRI	STANFORD RESEARCH INSTITUTE
SSAC	SENATE STATE AFFAIRS COMMITTEE
SSI	STATEWIDE SERVICES, INC.
STEPHEN	STEPHEN LAKE LODGE
TC	TRAVEL CENTER
TCC	TANANA CHIEFS CONFERENCE
TCSM	THE CHRISTIAN SCIENCE MONITOR
TES	TERRESTRIAL ENVIRONMENTAL SPECIALISTS
TR&CO	TOUCHE, ROSS & CO.
TSS	TOTAL SUSPENDED SOLIDS
TYONEK	TYONEK NATIVE ASSOCIATION
UAA	UNIVERSITY OF ALASKA - ANCHORAGE
UAF	UNIVERSITY OF ALASKA - FAIRBANKS
UAFGI	UNIVERSITY OF ALASKA FAIRBANKS GEOPHYSICAL INSTITUTE
UAM	UNIVERSITY OF ALASKA - MUSEUM
UAP	UNIVERSITY OF ALASKA - PALMER
UCM	USIBELLI COAL MINE, INC.
UOI	UNIVERSITY OF IOWA
UOM	UNIVERSITY OF MINNESOTA
UOW	UNIVERSITY OF WASHINGTON
USBC	US BUREAU OF CENSUS
USC	US CONGRESS

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ACRONYM LISTING

ACRONYM	DEFINITION
USCG	US COAST GUARD
USCOLD	US COMMITTEE OF LARGE DAMS
USFWS	US FISH AND WILDLIFE SERVICE
USGS	US GEOLOGICAL SURVEY
USWB	US WEATHER BUREAU
VS	VALLEY SUN
WANG	WANG WORD PROCESSING AND EQUIPMENT
WB	WORLD BANK
WCC	WOODWARD-CLYDE CONSULTANTS
WDCAFG	WORLD DATA CENTER A FOR GLACIOLOGY
WEIRCO	PAUL WEIR COMPANY
WELUT	WESTERN ENERGY AND LAND USE TEAM
WEPC	WISCONSIN ELECTRIC POWER COMPANY
WHARTON	WHARTON ECONOMETRIC FORECASTING ASSOCIATES
WSE	WATER SURFACE ELEVATION
WUA	WEIGHTED USABLE AREA
YUKON	YUKON OFFICE SUPPLY

APPENDIX F

APPENDIX F

CONTRACTOR/SUBCONTRACTOR WORK AREAS

ACRONYM	CONTRACTOR/SUBCONTRACTOR	MAJOR WORK AREA
ACRES	ACRES INTERNATIONAL CORPORATION	ENGINEERING, GEOLOGY
ADF&G	ADF&G GAME ALASKA DEPARTMENT OF FISH AND GAME (GAME)	WILDLIFE, GAME
ADF&G	ADF&G SUHYDRO ALASKA DEPARTMENT OF FISH AND GAME (SUHYDRO)	FISHERIES
AEIDC	ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER	TEMPERATURE MODELING, PRELIMINARY IMPACT ASSESSMENT
BATTELLE	BATTELLE PACIFIC NORTHWEST LABORATORIES	APPLICATION & MAINTENANCE OF RED MODEL
CMJV	CIRI, MOOLIN JOINT VENTURE	CAMP LOGISTICS, PERMITTING
D&M	DAMES & MOORE	COAL PRICE FORECASTING
EDAW	EDAW INC.	LAND USE, RECREATION
ENTRIX	ENTRIX, INC.	FISHERIES IMPACT ASSESSMENT & MITIGATION PLANNING
FOA	FRANK ORTH & ASSOCIATES	SOCIO-ECONOMIC IMPACT
HCA	HART-CROWSER & ASSOCIATES	CULTURAL RESOURCES
HEMMING	HEMMING, JAMES E.	TERRESTRIAL WILDLIFE IMPACT
HRA	HISTORICAL RESEARCH ASSOCIATES	CULTURAL RESOURCES
ISER	INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH	APPLICATION & MAINTENANCE OF MAP MODEL
KESSEL	KESSEL, BRINA	NON-GAME WILDLIFE
KREIG	R.A. KREIG AND ASSOCIATES	VEGETATION MAPPING

ACRONYM	CONTRACTOR/SUBCONTRACTOR	MAJOR WORK AREA
LFSI	LAND FIELD SERVICES, INC.	LAND OWNERSHIP
LGL	LGL ASSOCIATES	TERRESTRIAL WILDLIFE
WEIRCO	PAUL WEIR COMPANY	COAL PRICING
R&M	R&M ASSOCIATES	HYDROLOGY, RIVER SURVEYING & METEOROLOGY
THOMPSON	THOMPSON, GAIL	CULTURAL RESOURCES
EWTA	E. WOODY TRIHEY & ASSOCIATES	GENERAL AQUATIC IMPACT ASSESSMENT, INSTREAM FLOW METHODOLOGY
SHCA	SHERMAN H. CLARK & ASSOCIATES	OIL PRICE FORECAST
ACWRU	UNIVERSITY OF ALASKA, ALASKA COOPERATIVE WILDLIFE RESEARCH UNIT	TERRESTRIAL WILDLIFE
UAM	UNIVERSITY OF ALASKA - MUSEUM	CULTURAL RESOURCES
UAP	UNIVERSITY OF ALASKA - PALMER	PLANT ECOLOGY
WHARTON	WHARTON ECONOMETRIC FORECASTING ASSOCIATES CONSULTANTS	OIL PRICE FORECAST
WCC	WOODWARD-CLYDE CONSULTANTS	IMPACT ASSESSMENT & MITIGATION PLANNING

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KEYWORDS

1980
1981
1982
1983
1984
1985
1986
ABUNDANCE
ACCESS
ACCESS PLAN
ACCESS ROUTE
ACREAGE
ACRES
ADF&G
ADMIN
ADULT
AEIDC
AERATION
AERIAL
AESTHETIC
AGENCY
AGENDA
AGGRADATION
AGREEMENT
AGRICULTURE
AHTNA
AIR QUALITY
AIRCRAFT
AIRSTRIP
ALEXANDER
ALGAE
ALLUVIAL
ALTERNATIVE
AMENDMENT
AMMONIUM
ANADROMOUS
ANALYSES
ANALYSIS
ANCHORAGE
APA
APPLIANCE
APPLICATION
APPRAISAL
AQUATIC

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AQUIFER
AQUISITION
ARCHAEOLOGY
ARCHEOLOGY
ARCHIVE
ARCTIC
AREA PLAN
ARTICLES
ARTIFACT
ASSESSMENT
ASSUMPTION
ATHABASKAN
ATTENUATION
AUDIT
AUFEIS
AUTOMATIC
AVAILABILITY
AWL
BACKUP
BACKWATER
BALANCE
BALD EAGLE
BAROMETRIC
BASELINE
BASELOAD
BASIN
BCS
BEAR
BEAR BOOK
BEARBAIT
BEAVER
BEDLOAD
BEHAVIOR
BELL ISLAND
BELUGA WHALE
BENCHMARK
BENTHIC
BERING CISCO
BERM
BERRY
BIG GAME
BILLING
BIOLOGY
BIRCH
BIRCH CREEK

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KEYWORDS

BIRDS
BLACK BEAR
BLM
BLUELINE
BOARD
BONDS
BOREAL
BOREHOLE
BORROW
BOTANY
BRADLEY
BRANDING
BREACH
BREAKUP
BROWN BEAR
BROWNE
BROWSE
BUDGET
BURBOT
BURNING
BUS
BUSINESS
CABIN
CALCULATIONS
CALIBRATION
CAMP
CANDIDATE
CANTWELL
CAR
CARIBOU
CATALOGUE
CATCH
CEA
CENSUS
CHAKACHAMNA
CHANNEL
CHART
CHINOOK
CHUGACH
CHULITNA
CHUM
CIRCULAR
CISCO
CLARENCE
CLIMATE

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KEYWORD LISTING

KEYWORDS

CLIMATIC
COAL
COASTAL
COFFERDAM
COHO
COLLECTION
COLOR
COLUMBIA
COLUMN
COMANCHE
COMMENTS
COMMERCIAL
COMMODITY
COMMUNITY
COMPARISON
COMPLIANCE
COMPOSITION
COMPUTATIONS
COMPUTER
COMPUTER RUN
CONDUCTIVITY
CONE VALVES
CONFLUENCE
CONSERVATION
CONSTRUCTION
CONSULTANTS
CONSUMER
CONSUMPTION
CONTRACT
CONVERSION
COOK INLET
COPIES
CORE
CORE LOGS
CORE SAMPLES
CORE SLIDES
CORRIDORS
COST
COVER
CPUE
CRITERIA
CULTURAL
CURRENT
CURRY
CWT

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DALL
DALL SHEEP
DAM
DAMBREAK
DATA
DATA TAPE
DATAPOD
DE BUG
DEADHORSE
DEADMAN
DEGRADATION
DEIS
DELTA ISLAND
DEMAND
DEMOGRAPHIC
DENALI
DEPENDENTS
DEPHKA RIVER
DEPLOYMENT
DEPOSITION
DEPTH
DESHKA RIVER
DESIGN
DETAIL
DEVELOPMENT
DEVIL CANYON
DICTIONARY
DIESEL
DIET
DIGITIZATION
DIHAB
DISCHARGE
DISKETTE
DISPOSAL
DISSOLVED
DISTRIBUTION
DIVERSION
DLA
DNR
DOI
DOLLY VARDEN
DOWNSTREAM
DP
DRAFT
DRAWDOWN

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DRIFT
DRILLING
DUST
DYE
DYRESM
EAGLES
EAGLES NEST
EARTHQUAKE
EASEMENTS
ECOLOGY
ECONOMETRIC
ECONOMIC
ECOSYSTEMS
EFFICIENCY
EGG
EKLUTNA
ELASTICITY
ELECTRIC
ELECTROFISH
ELECTROSHOCK
ELEVATION
EMBRYO
EMERGENCE
EMERGENCY
EMPLOYMENT
ENDANGERED
ENERGY
ENGINEERING
ENLARGEMENT
ENVIRONMENT
EPA
EQUIPMENT
ERB
EROSION
ERRATA
ESCAPEMENT
ESTIMATE
ESTUARY
ETHNOGRAPHY
EULACHON
EUPHOTIC
EUTROPHIC
EVALUATION
EVAPORATION
EXH A

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EXH B
EXH C
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EXH F
EXH G
EXH H
EXHIBITS
EXPLORATION
EXPORT
FACILITIES
FAIRBANKS
FALCON
FDS
FEASIBILITY
FECUNDITY
FEIS
FERC
FERTILITY
FERTILIZER
FIELD
FIELD DATA
FIELD NOTES
FIELD STUDY
FIGURES
FILLING
FINANCIAL
FINS
FIRE
FISCAL
FISH
FISHERIES
FISHWHEEL
FLATHORN
FLOOD
FLOOD PLAIN
FLORA
FLOW
FLOW REGIME
FLUCTUATION
FMATS
FMUS
FOG CREEK
FOOD
FOOD HABITS

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KEYWORD LISTING

KEYWORDS

FORAGES
FORECAST
FOREST
FORMAT
FORMS
FOX
FREEZEUP
FREQUENCY
FRESHWATER
FUEL
FUEL COSTS
FUNDING
FURBEARERS
FUSE PLUGS
GAGE
GAGING ST
GAME
GAS
GASH CREEK
GEAR
GENERATION
GEOGRAPHIC
GEOGRAPHY
GEOHYDROLOGY
GEOLOGY
GEOPHYSICAL
GEOTECHNICAL
GEOTHERMAL
GILL NET
GLACIER
GOAT
GOLD CREEK
GOOSE
GOOSE CREEK
GRAPHICS
GRAPHS
GRAVEL
GRAVITY
GRAYLING
GRAYWACKE
GRIZZLY BEAR
GROUNDWATER
GROUSE
GROWTH
GSP

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KEYWORDS

GUIDELINES
GVEA
HABITAT
HALIBUT
HARVEST
HAZARDS
HEALTH
HEARINGS
HEATSIM
HEC-2
HEIGHT
HELICOPTER
HERB
HERITAGE
HIGHWAY
HISTOGRAM
HOMER
HOOK
HOUSEHOLD
HOUSING
HUNTING
HYDRAULIC
HYDRO
HYDROELEC
HYDROGEOLOGY
HYDROGRAPH
HYDROLAB
HYDROLOGY
IBM
ICE
ICECAL
IFE
IFG
IFIM
IFRR
IMPACT
IMPOUNDMENT
IMPROVEMENT
INCOME
INCOME TAX
INCUBATE
INCUBATION
INDEX
INDIAN RIVER
INDUSTRY

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KEYWORDS

INFLATION
INFLOW
INPUT
INSPECTION
INSTREAM
INSTRUCTION
INSURANCE
INTAKES
INTERGRAVEL
INTERNAL
INTERTIE
INTERVIEW
INVENTORY
INVERTEBRATE
INVESTIGATE
INVOICE
IRB
ISSUES
JAHS
JAPANESE
JOINTS
JULY CREEK
JURISDICTION
JUVENILE
KENAI
KNIK
KOSINA
KWH
LABOR
LABOR COST
LAKE
LAND
LAND USE
LANDSCAPE
LARSON LAKE
LEASE
LEGAL
LEGEND
LEGISLATION
LEGISLATURE
LIBRARY
LICENSE
LICHEN
LICKS
LIMNOLOGY

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LINE
LINEAR
LITERATURE
LNG
LOAD
LOAD FOLLOW
LOCALE
LOCATION
LOG BOOK
LOGGING
LOGISTICS
LOWER RIVER
LYNX
MAINSTEM
MAINSTEM II
MAINTENANCE
MAMMALS
MAN-MADE
MANAGEMENT
MANHOUR
MANUAL
MAP MODEL
MAPPING
MAPS
MARINE
MARKET
MARKET VALUE
MARTEN
MAT-SU
MATERIALS
MEA
MEASUREMENT
MEDICAL
MEETINGS
MEMOS
METEOROLOGY
METER
METHOD
METHODOLOGY
MICROSCOPE
MIDDLE RIVER
MIGRANT
MIGRATION
MILE
MILLING

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MINERAL
MINIMUM
MINING
MINNOW TRAP
MITIGATION
MODEL
MODELING
MODIFICATION
MONITOR
MONTANA
MONTHLY
MOOSE
MORITORIUM
MORPHOLOGY
MORTALITY
MUSKRAT
MYLAR
NATIVES
NATURAL
NATURAL GAS
NAVIGATION
NEED/POWER
NEGATIVES
NESTS
NEWSPAPER
NITROGEN
NMFS
NON-GAME
NORTH SLOPE
NOTES
NUIQSUT
NUTRIENTS
NUTRITION
O&M
OBJECTIVE
OBSERVATION
OCS
OGP MODEL
OIL
OPEN LEAD
OPERATION
ORGANIC
OSHETNA
OTOLITH
OUTLINE

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KEYWORDS

OUTMIGRANT
OUTMIGRATION
OVERLAY
OVERVIEW
OWNERSHIP
OXYGEN
PARCEL
PARTICLES
PASSAGE
PEAKING
PEREGRINE
PERIODICITY
PERMAFROST
PERMIT
PETROLEUM
PHASE II
PHASE III
PHENOLOGY
PHONE LOG
PHOSPHORUS
PHOTOMOSAIC
PHOTOS
PHYSIOLOGY
PINK
PIPELINE
PLAN
PLANIMETRIC
PLANKTON
PLANTS
PLATE
PLATTING
PLOT
PMF
PMP
POACHING
POLICY
POLLUTION
POPULATION
PORTAGE
POS
POWER
PRECIP
PRESS
PRICE
PRIVATE

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PROCEDURES
PROCESS
PROCESSES
PROCESSING
PROFILE
PROGRESS
PROGRESS RPT
PROJECTIONS
PROPERTY
PROPOSAL
PSD
PUBLIC
PURCHASE
PURCHASES
QUADRANT
QUALITY
RABIDEUX
RADIO
RAIL
RAILBELT
RAILHEAD
RAINBOW
RAINFALL
RAPTOR
RATE
RATING CURVE
REACH
REAL ESTATE
REARING
RECAPTURE
RECLAMATION
RECOMMEND
RECON
RECORDS
RECREATION
RECYCLE
RED MODEL
REDD
REFERENCE
REGIME
REGIONAL
REGRESSION
REGULATIONS
REHAB
REINDEER

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RELEASE
RELIABILITY
RELICT
RELOCATION
REPORT
REQUEST
RESEARCH
RESERVOIR
RESIDENT
RESIDENTIAL
RESOURCES
RESPONSE
RESTRICTED
RETENTION
REVEGETATION
REVENUE
REVIEW
RIGHT-OF-WAY
RIMS
RIPARIAN
RISK
RIVER
RIVER MILE
RJHAB
ROAD
ROLLY CREEK
ROUTE
RULE CURVE
RUN OFF
SAFETY
SALINITY
SALMON
SAMPLE
SANITATION
SATURATION
SCALE
SCENARIO
SCHEDULES
SCHOOL
SCOUR HOLE
SEASONAL
SEDIMENT
SEEPAGE
SEINING
SEISMIC

APPENDIX G

KEYWORD LISTING

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KEYWORDS

SENSITIVITY
SERVICES
SETTLEABLE
SETTLEMENT
SETTLING
SFH
SHADING
SHADOW
SHEEP
SHERMAN
SHOVEL TEST
SIDE CHANNEL
SIDE SLOUGH
SIEVE
SIGNIFICANCE
SILT
SITE
SLIDES
SLOPE
SLOUGH
SMALL GAME
SMOLT
SMOLT TRAP
SNOW
SNOWMOBILES
SNTEMP
SOCIAL
SOCIO-ECON
SOCKEYE
SOIL
SOLIDS
SONAR
SPAWNING
SPECIES
SPECS
SPILLWAY
SPRINGS
SPRUCE
STABILITY
STAFF
STAFF GAGE
STAGE
STANDPIPE
STATISTICS
STATUS

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KEYWORDS

STATUS PLAT
STATUTES
STEELHEAD
STRATEGY
STRATIFY
STREAM
STREAMFLOW
STREAMGAGE
STRUCTURE
SUBARCTIC
SUBROUTINE
SUBSISTENCE
SUBSTRATE
SUCCESSION
SUITABILITY
SUMMARY
SUNSHINE
SUPER
SUPPLEMENT
SURFACE
SURVEY
SURVEY NOTES
SUSITNA
SUSPENDED
SYMBOLS
SYNTEMP
T-LINE
TABLES
TABULATION
TAG
TALKEETNA
TAPE
TARIFF
TAX
TECHNICAL
TECTONIC
TELEMETRY
TEMPERATURE
TENT
TERRAIN
TERRESTRIAL
TEST HOLE
TESTIMONY
THALWEG
THERMAL

APPENDIX G

KEYWORD LISTING

KEYWORDS

THERMOGRAPH
THERMOMETER
TIDAL
TIMBER
TIMESHEET
TOWNSHIP
TOWNSITE
TRADE
TRAFFIC
TRAINING
TRANSECT
TRANSFER
TRANSLATION
TRANSMISSION
TRANSMITTAL
TRANSPORT
TRAP
TRAPPER
TRAPPERCREEK
TRAPPING
TREELINE
TREES
TRIBUTARY
TRIP
TROT LINE
TROUT
TSS
TSUSENA
TUNDRA
TUNNEL
TURBIDITY
TYONE
UNIT
UPDATE
UPPER RIVER
UPSTREAM
UPWELL
USAGE
USE
USER MANUAL
USFWS
USGS
UTILITIES
UTILIZATION
VALIDATION

APPENDIX G

KEYWORD LISTING

KEYWORDS

VALVES
VECTOR
VEGETATION
VEHICLE
VELOCITY
VENDOR
VILLAGE
VISUAL
WAGES
WAINWRIGHT
WASTEWATER
WATANA
WATANA CAMP
WATANA CREEK
WATER
WATER RIGHT
WATER SURF
WATER USE
WATER YEAR
WATERFOWL
WEATHER
WEATHERIZE
WEIR
WELL LOG
WELUT
WETLANDS
WHALE
WHISKERS
WIDTH
WILDLIFE
WILLOW
WIND
WINTER
WITH-PROJ
WOLF
WOLVERINE
WORK PLAN
WORKER
WORKSCOPE
WORKSHOP
WORLD
WSEL
WUA
X-SECTION
YENTNA

APPENDIX H

APPENDIX H

SUSITNA HYDROELECTRIC PROJECT
DOCUMENT CONTROL FILE CODES

TASK 1 - PROJECT MANAGEMENT

1.01 RFP PROCESS

1.1 MAIN CONTRACT

- 1.1.1 Negotiations
- 1.1.2 Scope of Work
- 1.1.3 Budget
- 1.1.4 Contract terms, App C.

1.2 INTERIM CONTRACTS

- 1.2.1 Interim Contract I
- 1.2.2 Interim Contract II
  - 1.2.2.1 Amendment 1
  - 1.2.2.2 Amendment 2
  - 1.2.2.3 Amendment 3
  - 1.2.2.4 Amendment 4
  - 1.2.2.5 Amendment 5
  - 1.2.2.6 Amendment 6
  - 1.2.2.7 Amendment 7
- 1.2.3 Legal Counsel

1.3 INSURANCE

- 1.3.1 Main Contract
- 1.3.2 Interim Contract
- 1.3.3 Vehicles
- 1.3.4 Subcontracts
- 1.3.5 Damaged Shipments
- 1.3.6 Air Travel

1.4 PERSONNEL

- 1.4.1 Resumes
  - 1.4.1.1 Internal
  - 1.4.1.2 External
  - 1.4.1.3 Responses
- 1.4.2 Personnel Policies
- 1.4.3 Relocations
- 1.4.4 Letters of Assignment
  - 1.4.4.1 Permanent
  - 1.4.4.2 Temporary
  - 1.4.4.3 Indefinite
- 1.4.5 Hires
- 1.4.6 Personnel
  - 1.4.6.1 Personnel Costs
  - 1.4.6.2 Personnel List

1.4.6.3 Personnel Files
1.4.7 Employee Location Schedule
1.4.8 Employee Substitutions/Assignments
1.4.9 Housing
1.4.10 Home Office Support
1.4.11 Temporary Assignments
1.4.12 Terminations
1.4.13 Advertising
1.4.14 Organization
1.4.14.1 Harza-Ebasco
1.4.14.2 Alaska Power Authority
1.4.15 Temporary Absences
1.4.16 Technical Papers
1.4.17 Professional Organizations/Meetings
1.4.18 Training
1.4.19 Job Descriptions
1.4.20 General Information

1.5 ALASKA REGISTRATION

1.5.1 Professional
1.5.2 Business

1.6 MANAGEMENT COMMITTEE

1.6.1 Minutes of Meetings
1.6.2 Policies
1.6.3 General Correspondence
1.6.4 Joint Venture Agreement

1.7 OFFICE SPACE

1.7.1 Alaska
1.7.1.1 Temporary
1.7.1.2 Permanent
1.7.2 Bellevue

1.8 CORRESPONDENCE

1.8.1 From the Power Authority
1.8.1.1 Letters to File
1.8.2 To the Power Authority
1.8.2.1 Company Promotional Materials
1.8.2.1.1 Cost/Schedule
1.8.2.2 Seminars
1.8.3 From Pillsbury, Madison & Sutro
1.8.4 To Pillsbury, Madison & Sutro
1.8.5 From Legislature
1.8.5.1 Legislation/Appropriations
1.8.6 To Legislature
1.8.7 From the Office of the Governor
1.8.8 To the Office of the Governor
1.8.9 To Department of Commerce and Economic Development

1.8.10 From Department of Commerce and Economic Development
1.8.11 To Department of Natural Resources
1.8.12 From Department of Natural Resources
1.8.13 To Alaska Department of Fish and Game
1.8.14 From Alaksa Department of Fish and Game
1.8.15 To the Department of Revenue
1.8.16 From the Department of Revenue
1.8.17 From the Attorney General°s Office
1.8.18 To the Attorney General°s Office
1.8.19 From the Alaska Congressional Delegation
1.8.20 To the Alaska Congressional Delegation
1.8.21 From VFSC&L
1.8.22 To VFSC&L

1.9 PROJECT MANAGEMENT PLAN

1.9.1 Correspondence

1.10 OPEN

1.11 REPORTS

1.11.1 Incentivized Milestone
1.11.2 Monthly Progress Report
1.11.3 Weekly Activities Report (Board)
1.11.4 Monthly Status
1.11.5 Financial Report
1.11.6 Synoptic Performance Report
1.11.7 Trip Reports

1.12 ACCOUNTING

1.12.1 Billings Harza to Joint-Venture
1.12.2 Billings Ebasco to Joint-Venture
1.12.3 Billings Joint-Venture to Power Authority
1.12.3.1 Progress
1.12.3.2 Monthly
1.12.4 Audit
1.12.4.1 APA
1.12.4.2 Harza
1.12.4.3 Ebasco
1.12.5 Parent Company Disbursements
1.12.5.1 Parent Company Split
1.12.6 Financial Statements
1.12.7 Overhead Expenses
1.12.8 Invoices to Harza

1.13 INTERNAL REVIEW BOARD (Management Only)

1.13.1 Correspondence
1.13.2 Minutes of Meetings
1.13.3 Membership

1.14 OPEN

1.15 OPEN

1.16 OPEN

1.17 DOCUMENT CONTROL

- 1.17.1 Procedures
- 1.17.2 Correspondence/Ledgers
- 1.17.3 Requests for Information
  - 1.17.3.1 Public
  - 1.17.3.2 Intervenors
  - 1.17.3.3 Agencies
  - 1.17.3.4 Legal Counsel
  - 1.17.3.5 External Review Panel
- 1.17.4 Transfer of Documents
  - 1.17.4.1 Correspondence
  - 1.17.4.2 Reports
    - 1.17.4.2.1 Document Distribution Lists
  - 1.17.4.3 Drawings/Photographs
  - 1.17.4.4 Files
  - 1.17.4.5 State Library System
- 1.17.5 Information Dissemination
- 1.17.6 Computer
- 1.17.7 Microfilm
- 1.17.8 File Codes

1.18 SAFETY

- 1.18.1 Procedures
  - 1.18.1.1 Office
  - 1.18.1.2 Camp
- 1.18.2 Accident Reports

1.19 ANCHORAGE OFFICE OPERATIONS

- 1.19.1 Office Procedures
- 1.19.2 Vehicles
- 1.19.3 Travel
- 1.19.4 Office Equipment
- 1.19.5 Office Supplies
- 1.19.6 Time Charges
- 1.19.7 Aircraft Rent
- 1.19.8 Hotel Letters
- 1.19.9 Banking
- 1.19.10 Security
- 1.19.11 Telephone
- 1.19.12 Memberships/Donations
- 1.19.13 Expense Accounts
- 1.19.14 Credit Information
- 1.19.15 Overtime Requests
- 1.19.16 Advertising (Non-personnel)

1.19.17 Meeting Rooms
1.19.18 Harza-Ebasco Trip Reports

1.20 QUALITY ASSURANCE

1.20.1 General

1.21 MEETINGS

1.21.1 Project Status Review
1.21.2 Regulatory Management Committee
1.21.3 Weekly Staff
1.21.4 Project Management (APA/HE)
1.21.5 G-CORE

1.22 POWER AUTHORITY BOARD MEETINGS

1.22.01 Board Report - April 1982
1.22.1 Correspondence
1.22.1.1 From the Board
1.22.1.2 To the Board
1.22.2 Board Meetings by Date
1.22.2.1 October 14, 1983
1.22.2.2 November 30, 1983
1.22.2.3 December 21, 1983
1.22.2.4 January 25, 1984
1.22.2.5 February 22, 1984
1.22.2.6 March 9, 1984
1.22.2.7 March 20, 1984
1.22.2.8 April 12, 1984
1.22.2.9 May 21, 1984
1.22.2.10 July 9, 1984
1.22.2.11 August 7, 1984
1.22.2.12 September 5, 1984
1.22.2.13 October 8, 1984
1.22.2.14 November 9, 1984
1.22.2.15 December 13, 1984
1.22.2.16 January 23, 1985
1.22.2.17 February 26, 1985
1.22.2.18 April 9, 1985
1.22.2.19 May 3, 1985
1.22.2.20 June 24, 1985
1.22.2.21 July 26, 1985
1.22.2.22 September 5, 1985
1.22.2.23 October 2, 1985
1.22.2.24 November 6, 1985
1.22.2.25 December 12, 1985
1.22.2.26 January 24, 1986
1.22.2.27 March 24, 1986
1.22.2.28 April 7, 1986
1.22.2.29 April 30, 1986
1.22.2.30 June 16, 1986
1.22.2.31 July 23, 1986
1.22.2.32 August 13, 1986

1.22.2.33 September 9, 1986
1.22.2.34 October 13, 1986
1.22.2.35 November 19, 1986
1.22.2.36 February 5, 1987
1.22.2.37 February 27, 1987
1.22.2.38 March 13, 1987
1.22.2.39 April 22, 1987
1.22.2.40 May 26, 1987

1.22.3 Finance Committee
1.22.3.1 Correspondence from Committee
1.22.3.2 Correspondence to Committee
1.22.3.3 Meetings by Date

1.22.4 Planning Committee
1.22.4.1 Correspondence from Committee
1.22.4.2 Correspondence to Committee
1.22.4.3 Meetings by Date

1.22.5 Project Management Committee
1.22.5.1 Correspondence from Committee
1.22.5.2 Correspondence to Committee
1.22.5.3 Meetings by Date

1.22.6 Resource Committee
1.22.6.1 Correspondence from Committee
1.22.6.2 Correspondence to Committee
1.22.6.3 Meetings by Date

1.23 OPEN

1.24 SUSITNA PROJECT SCHEDULE, OVERALL

1.25 CONTRACT COMPLIANCE

1.25.1 General
1.25.2 Correspondence
1.25.3 Reports
1.25.4 Review of Invoices
1.25.5 Touche Ross Audit (1985)

1.26 PROJECT CLOSEOUT

1.26.1 Correspondence
1.26.2 Document Control

1.27 DEVIL CANYON PROJECT

1.27.1 Correspondence

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2.1 COST/SCHEDULING

- 2.1.1 Cost/Scheduling Control Procedure
  - 2.1.1.1
  - 2.1.1.2 Revision 1
  - 2.1.1.3 General
- 2.1.2 Progress Report
  - 2.1.2.1 Monthly
- 2.1.3 Project Cost Report
  - 2.1.3.1 Monthly
- 2.1.4 Subcontractor Status Reports
- 2.1.5 Management Reserve
- 2.1.6 Project Budgets
  - 2.1.6.1 Interim Contract I
  - 2.1.6.2 Interim Contract II
  - 2.1.6.3 Interim Contract II, Amendment 1
  - 2.1.6.4 Interim Contract II, Amendment 2
  - 2.1.6.5 Interim Contract II, Amendment 3
  - 2.1.6.6 Interim Contract II, Amendment 4
  - 2.1.6.7 Interim Contract II, Amendment 5
  - 2.1.6.8 Interim Contract II, Amendment 6
  - 2.1.6.9 FY84 Budget
  - 2.1.6.10 FY85 Budget
  - 2.1.6.11 FY86 Budget
  - 2.1.6.12 FY87 Budget
  - 2.1.6.13 FY88 Budget
  - 2.1.6.14 FY89 Budget
- 2.1.7 Project Change Requests
  - 2.1.7.2 PCRs
  - 2.1.7.3 Correspondence
- 2.1.8 OPEN
- 2.1.9 Project/2
  - 2.1.9.1 Scheduling
- 2.1.10 Project Administration and Control Procedures
- 2.1.11 Demobilization Expenses
- 2.1.12 Home Office Support Charges
- 2.1.13 OPEN
- 2.1.14 OPEN
- 2.1.15 OPEN
- 2.1.16 Project Cash Flows
- 2.1.17 Project Schedules
  - 2.1.17.1 Licensing, Engineering, Construction, and Procurement
- 2.1.18 Work Authorization Directives
- 2.1.19 OPEN
- 2.1.20 OPEN
- 2.1.21 General Correspondence

2.2 ACCOUNTING

2.2.1 Invoices to Power Authority (by Month)
2.2.2 Harza Invoices (by Month)
2.2.3 Ebasco Invoices (by Month)
2.2.4 Subcontractor's Invoices

- 2.2.4.1 ADF&G - Warehouse
- 2.2.4.2 ADF&G - Spenard Building (ADF&G)
- 2.2.4.3 CIRI/H&N (CIRI/H&N)
- 2.2.4.4 R&M
- 2.2.4.5 Air Logistics - Helicopter (AIRLOG)
- 2.2.4.6 Air Logistics - Fixed Wing (AIRLOG)
- 2.2.4.7 Denali Drilling (DENALI)
- 2.2.4.8 Harding-Lawson and Associates (HLA)
- 2.2.4.9 Frank Moolin and Associates (FMAA)
- 2.2.4.10 Frank Orth and Associates (FOA)
- 2.2.4.11 OPEN
- 2.2.4.12 Land Field Services, Inc. (LFSI)
- 2.2.4.13 OPEN
- 2.2.4.14 EDAW (EDAW)
- 2.2.4.15 Woody Trihey and Associates (EWT)
- 2.2.4.16 AEIDC (AEIDC)
- 2.2.4.17 Woodward-Clyde Corporation (WCC)
- 2.2.4.18 LGL (LGL)
- 2.2.4.19 MSI (MSI)
- 2.2.4.20 Commonwealth Associates (CA)
- 2.2.4.21 Acres American Incorporated (ACRES)
- 2.2.4.22 Battelle Pacific Northwest (BATTELLE)
- 2.2.4.23 University of Alaska - Institute for Social and Economic Research (ISER)
- 2.2.4.24 University of Alaska - Museum (UAM)
- 2.2.4.25 University of Alaska - Palmer (UAP)
- 2.2.4.26 University of Alaska - Furbearer Coop Unit (UAF)
- 2.2.4.27 OPEN
- 2.2.4.28 OPEN
- 2.2.4.29 Jones & Jones (J&J)
- 2.2.4.30 OPEN
- 2.2.4.31 OPEN
- 2.2.4.32 OPEN
- 2.2.4.33 OPEN
- 2.2.4.34 OPEN
- 2.2.4.35 RMI Pacfic Northwest, Inc. (RMI)
- 2.2.4.36 OPEN
- 2.2.4.37 OPEN
- 2.2.4.38 OPEN
- 2.2.4.39 OPEN
- 2.2.4.40 Pillsbury, Madison and Sutro (PMS)
- 2.2.4.41 Sherman H. Clark & Asso. (SHCA)
- 2.2.4.42 General Electric (GE)
- 2.2.4.43 Alaska Helicopters, Inc. (AKHEL)
- 2.2.4.44 Paul Weir Company (WEIRCO)

2.2.4.45 USGS (USGS)
2.2.4.46 Request For Proposal
2.2.4.47 Department of Environmental Conservation (DEC)
2.2.4.48 Erickson & Associates (E&A)
2.2.4.49 Peck (PECK)
2.2.4.50 Alfred J. Hendron (HENDRON)
2.2.4.51 Milo Bell (BELL)
2.2.4.52 Interstate Exploration, Inc. (IEI)
2.2.4.53 Department of Revenue (DOR)
2.2.4.54 Calkins/Shen (SHEN)
2.2.3.55 Gosink-Osterkemp (GO)
2.2.4.56 External Review Panel (ERP)
2.2.4.57 Paul Hamblin (HAMBLIN)
2.2.4.58 Raven Air (RAVEN)
2.2.4.59 Air Logistics FY84 (Closed) (AIRLOG)
2.2.4.60 Lorna Adams (ADAMS)
2.2.4.61 Gloria Tileston (TILESTON)
2.2.4.62 Alaska Air Guide (AIRGUIDE)
2.2.4.63 Timothy J. Tyrrell (TYRRELL)
2.2.4.64 Comtech, Inc. (COMTECH)
2.2.4.65 Dames & Moore (D&M)
2.2.4.66 R.A. Kreig & Associates (KREIG)
2.2.4.67 A.A. Dekin, Jr. (DEKIN)
2.2.4.68 CIRI/Moolin J.V. (Assignment)(CMJV)
2.2.4.69 Brina Kessel (KESSEL)
2.2.4.70 Gail Thompson (ERTEC)
2.2.4.71 CIRI/Moolin (CIRI/Moolin)(FY85)
2.2.4.72 University of Iowa, Institute of Hydraulic Research (IIHR)
2.2.4.73 University of Alaska, Geophysical Institute (HARRISON)
2.2.4.74 Shen (SHEN)
2.2.4.75 Hydex Corporation (HYDEX)
2.2.4.76 Historical Research Associates, Inc. (HRA)
2.2.4.77 Air Logistics - (AIRLOG) FY85
2.2.4.78
2.2.4.79 ISER (Resource User Survey)
2.2.4.80 James E. Hemming (HEMMING)
2.2.4.81 Rausch Enterprises (RAUSCH)
2.2.4.82
2.2.4.83 Interstate Exploration, Inc. (IEI)
2.2.4.84 Hart-Crowser and Associates, Inc.
2.2.4.85 Entrix. Inc.
2.2.4.86 CIRI/Moolin (FY86)
2.2.4.87 Woodward-Clyde Con. (WCC)
2.2.4.88 Phil Gipson
2.2.4.89 ERA

2.2.5 Accounts Payable
2.2.5.1 Disbursements to Harza

2.2.5.2 Disbursements to Ebasco
2.2.6 Banking
2.2.7 Travel and Relocation
2.2.8 Procurement
2.2.8.1 Purchase Orders
2.2.8.2 Inventory - HE
2.2.9 OPEN
2.2.10 OPEN
2.2.11 OPEN
2.2.12 OPEN
2.2.13 OPEN
2.2.14 Office Administration
2.2.15 OPEN
2.2.16 Inventory - Subcontractors
2.2.16.1 General Correspondence
2.2.16.2 Monthly Status Reports to APA
2.2.16.3 CIRI/H&N
2.2.16.4 R&M
2.2.16.5 Denali Drilling
2.2.16.6 Harding Lawson
2.2.16.7 Frank Moolin & Asso. (MOOLIN)
2.2.16.8 E. Woody Trihey & Asso. (EWTA)
2.2.16.9 AEIDC
2.2.16.10 Woodward-Clyde & Asso. (WCC)
2.2.16.11 LGL
2.2.16.12 MSI
2.2.16.13 University of Alaska, Museum (UAM)
2.2.16.14 University of Alaska, Fairbanks ACWRU
2.2.16.15 ADF&G/TERR
2.2.16.16 ADF&G/SUHYDRO
2.2.16.17 R. Kreig & Asso. (KREIG)
2.2.16.18 HRA
2.2.16.19 CIRI-MOOLIN (CMJV)
2.2.16.20 University of Alaska, Palmer (AAES)
2.2.16.21 Jones & Jones (J&J)
2.2.17 Joint-Venture Financial Statements
2.2.18 LIBRA Software
2.2.19 OPEN
2.2.20 Taxes

2.3 CONTRACT ADMINISTRATION

2.3.1 ADF&G - Warehouse
2.3.2 ADF&G - Spenard Building (ADF&G)
2.3.3 CIRI/H&N
2.3.4 R&M Consultants
2.3.5 Air Logistics - Helicopter (AIRLOG) (Closed-FY83)
2.3.6 Air Logistics - Fixed Wing (AIRLOG) (Closed-FY83)
2.3.7 Denali Drilling (DENALI) (Closed)

2.3.8 Harding-Lawson and Associates (HLA)
2.3.9 Frank Moolin and Associates (FMAA)
2.3.10 Frank Orth and Associates (FOA)
2.3.11 OPEN
2.3.12 Land Field Services, Inc. (LFSI)
2.3.13 OPEN
2.3.14 EDAW
2.3.15 Woody Trihey and Associates (EWT)
2.3.16 AEIDC
2.3.17 Woodward-Clyde Corporation (WCC)
2.3.18 LGL
2.3.19 MSI
2.3.20 Commonwealth Associates (CA)
2.3.21 Acres American Incorporated (ACRES)
2.3.21.1 Assignments
2.3.21.2 Subcontract
2.3.22 Battelle Pacific Northwest (BATTELLE)
2.3.23 University of Alaska - Institute for Social and Economic Research (ISER)
2.3.24 University of Alaska - Museum (UAM)
2.3.25 University of Alaska - Palmer) (UAP)
2.3.26 University of Alaska - Furbearer Coop Unit
2.3.27 Alan G.Olsen (OLSEN)
2.3.28 Paul Stutzman (STUTZMAN)
2.3.29 Jones & Jones (J&J) (Closed)
2.3.30 USF&WS - WELUT (USFWS)
2.3.31 ADF&G - Game
2.3.32 ADF&G - Fish
2.3.33 ADF&G - RSA
2.3.34 Army & Navy Surplus
2.3.35 RMI Pacfic Northwest, Inc. (RMI)
2.3.36 General
2.3.36.1 Short Form Contract - Small Company
2.3.36.2 Short Form Contract - Large Company
2.3.36.3 Long Form Contract
2.3.37 ADF&G Line 500 Equipment Purchase
2.3.38 Soil Conservation Service (SCS)
2.3.39 Birch, Horton, Bittner (BHB)
2.3.40 Pillsbury, Madison and Sutro (PMS)
2.3.41 Sherman H. Clark and Associates (SHCA)
2.3.42 General Electric (GE)
2.3.43 Alaska Helicopters, Inc. (AKHEL)
2.3.44 Paul Weir Company (WEIRCO)
2.3.45 USGS
2.3.46 Request For Proposals
2.3.46.1 Aircraft - Helicopter
2.3.46.2 Aircraft - Fixed Wing
2.3.46.3 Vegetation Mapping
2.3.46.4 Spring FY84 Drilling
2.3.46.5 Sediment Modeling
2.3.46.6 Resource User Survey
2.3.46.7 Helicopter Service
2.3.46.8 Streamflow Forecasting
2.3.46.9 Linear Features

2.3.46.10 Resource User Survey
2.3.46.11 Helicopter Services (FY85-86)
2.3.46.12 Aircraft - Fixed Wing
2.3.46.13 Master Plan Drilling
2.3.46.14 Watana Camp Relocation
2.3.46.15 Heritage Value
2.3.46.16 Helicopter Services (FY86-87)
2.3.47 Department of Environmental Conservation(DEC)
2.3.48 Erickson & Associates
2.3.49 Peck
2.3.50 Alfred J. Hendron (HENDRON)
2.3.51 Milo Bell (BELL)
2.3.52 Interstate Exploration, Inc. (IEI)
2.3.53 Department of Revenue (DOR)
2.3.54 Calkins/Shen
2.3.55 Gosink-Osterkemp
2.3.56 External Review Panel (ERP)
2.3.56.1 J. Libby
2.3.56.2 A. Merritt
2.3.56.3 R. Peck
2.3.57 Paul Hamblin (Hamblin)
2.3.58 Raven Air (RAVEN) Fixed Wing
2.3.59 Air Logistics (AIRLOG) FY84 (Closed)
2.3.60 Lorna Adams (ADAMS)
2.3.61 Gloria Tileston (TILESTON)
2.3.62 Alaska Air Guide (AIRGUIDE)
2.3.63 Timothy J. Tyrrell (TYRRELL)
2.3.64 Comtech, Inc.
2.3.65 Dames and Moore (D&M)
2.3.66 R.A. Krieg and Associates (KRIEG)
2.3.67 Albert A. Dekin, Jr. (DEKIN)
2.3.68 CIRI/Moolin J.V. (Assignment)
2.3.69 Brina Kessel (KESSEL)
2.3.70 Gail Thompson (ERTEC)
2.3.71 CIRI/Moolin (CIRI/Moolin)(FY85)
2.3.72 University of Iowa, Institute of Hydraulic Research (IIHR)
2.3.73 University of Alaska Fairbanks, Geophysical Institute (HARRISON)
2.3.74 Shen (SHEN)
2.3.75 Hydex Corporation (HYDEX)
2.3.76 Historical Research Associates, Inc. (HRA)
2.3.77 Air Logistics, Inc. (AIRLOG) FY85
2.3.78 Neil L. Adams (ADAMS)
2.3.79 ISER (Resource User Survey)
2.3.80 James E. Hemming
2.3.81 Rausch Enterprises
2.3.82 OPEN
2.3.83 Interstate Exploration, Inc. (IEI)
2.3.84 Hart-Crowser and Associates, Inc.
2.3.85 Entrix. Inc.
2.3.86 CIRI/Moolin (FY86)

2.3.87 Woodward-Clyde Con. (WCC) Native Consultation Study
2.3.88 Phil Gipson
2.3.89 ERA

2.3.200 - 299 RESERVED FOR POWER AUTHORITY

2.3.200 Soil Conservation Service (SCS)
2.3.201 Department of Natural Resources RSA (DNR)
2.3.202 CIRI Agreement
2.3.203 Gemini Reporting
2.3.204 ADF&G RSA
- 2.3.204.1 SuHydro/Commercial
- 2.3.204.2 Habitat
- 2.3.204.3 Administration
- 2.3.204.4 Sport Fish (River Use Survey)
- 2.3.204.5 SuHydro/Sport
- 2.3.204.6 Game
- 2.3.204.7 FY86 ADF&G Budget

2.3.205 Department of Law RSA's
- 2.3.205.1 PMS & BHB and Van Ness Contracts
- 2.3.205.3 Carolyn Jones Legal Support

2.3.206 Power Authority (RFP's)
- 2.3.206.1 Project Management Plan

2.3.207 General Electric - OGP/MAPS
2.3.208 University of Alaska - Museum (RSA)
2.3.209 USGS
2.3.210 PSDI
2.3.211 U of A - Geophysical Institute - RSA
2.3.212 Land Field Services, Inc. (LFSI)
2.3.213 Diversified Engineers
2.3.214 KNIK-ATNU Land Lease Agreement (FY86) (FY87)
2.3.215 Tyonek Land Lease (FY86(
2.3.216 CIRI Consensus Lands Lease (FY86)

2.4 ESTIMATING

2.4.1 Estimating Procedures
2.4.2 Feasibility Estimate
2.4.3 Contract Baseline Estimate
2.4.4 Fiscal Year Budgets
2.4.5 Study Estimates
2.4.6 Contract Estimates
2.4.7 Independent Cost Estimate

2.5 PROCUREMENT - CONSTRUCTION

2.5.1 General
2.5.2 Turbine, Governors
- 2.5.2.1 Purchase Orders
- 2.5.2.2 Expediting
- 2.5.2.3 Vender Quality Assurance

2.5.3 Generator and Excitational Equipment
2.5.4 Microwave System

2.5.5 Computer and Control Boards
2.5.6 Trashracks, Gates, and Hoists
2.5.7 Cranes and Hoists
2.5.8 Outlet Works, Valves and Gates
2.5.9 Transformers
2.5.10 Control Switchboards
2.5.11 High Voltage Switchgear
2.5.12 Generator Voltage Switchgear
2.5.13 Station Service Switchgear
2.5.14 Computers
2.5.15 345 kV Power Cable
2.5.16 Switchyard Structures and Bases

2.6 GENERAL

2.6.1 Interoffice Memoranda
2.6.2 Administration Meeting with Power Authority

2.7 SERVICES

2.7.1 Consulting
2.7.2 Manufacturing
2.7.3 Field
- 2.7.3.1 Geotechnical
- 2.7.3.2 Environmental
- 2.7.3.3 Construction

2.7.4 Employment
2.7.5 Air Support

2.8 WAREHOUSING

2.8.1 Correspondence
2.8.2 Lease - 7th and Gambell
2.8.3 Relocation

TASK 3 - REVIEW OF PRIOR STUDIES, DEVELOP CONCEPTUAL - DESIGN AND MASTER PROJECT SCHEDULE

3.1 MEMORANDUM ON CONCEPT VARIATIONS

3.2 ACRES PRELIMINARY STUDIES

3.3 GEOTECHNICAL STUDIES (ACRES)

- 3.3.1 Review of Acres: Reports on Field Investigations
- 3.3.2 Review of Acres: Reports on Project Geology
- 3.3.3 Review of Acres: Reports on Materials Testing
- 3.3.4 Review of Acres: Additional Field Investigations
- 3.3.5 Review of Acres: Additional Tests
- 3.3.6 Review of Acres: Additional Studies
- 3.3.7 Prepare Information for Conceptual Studies: Geologic
- 3.3.8 Prepare Information for Conceptual Studies: Geotechnical

3.4 MAIN DAM

- 3.4.1 Review Acres: Alternative Studies, Cost Comparisons
- 3.4.2 Review Acres: Recommended Design, Backup Material
- 3.4.3 Review Acres: Dam Height Optization Studies
- 3.4.4 Foundation Treatment: Grouting
- 3.4.5 Foundation Treatment: Drainage
- 3.4.6 Foundation Treatment: Permafrost
- 3.4.7 Material Availability and Quality: Impervious Materials
- 3.4.8 Material Availability and Quality: Sand and Gravels
- 3.4.9 Material Availability and Quality: Quarries
- 3.4.10 Fill Dam: Layouts
- 3.4.11 Fill Dam: Costs
- 3.4.12 Fill Dam: Construction
- 3.4.13 Concrete Arch Dam: Layouts
- 3.4.14 Concrete Arch Dam: Costs
- 3.4.15 Concrete Arch Dam: Construction Schedule
- 3.4.16 Selection of Dam Concept

3.5 DIVERSION TUNNELS AND COFFERDAMS

- 3.5.1 Tunnel Location, Alignment, Vertical Setting
- 3.5.2 Upstream Portal Location, Provisions for Construction
- 3.5.3 Downstream Portals
- 3.5.4 Hydraulic Studies
- 3.5.5 Cofferdam Arrangement

3.5.6 Foundation Treatment
3.5.7 Low Level Outlet Works Provisions
3.5.8 Selection of Diversion Tunnels and Cofferdams Concept

3.6 INTERIM REPORT, MAIN DAM AND DIVERSION TUNNELS

3.6.1 General Correspondence
3.6.2 Geology
3.6.3 Geotechnical
3.6.4 Civil
3.6.5 Hydraulics

3.7 MIDDLE LEVEL OUTLET WORKS (MLOW)

3.7.1 Conceptual Studies
3.7.2 Studies for Size, Type, and Location
3.7.3 Intake Arrangement
3.7.4 Gate Arrangement
3.7.5 Energy Dissipation
3.7.6 Nitrogen Supersaturation Mitigation
3.7.7 Access Provisions

3.8 SPILLWAYS

3.8.1 Fuse Plug Spillway
3.8.2 Environmental Implications (Tsusena Creek)
3.8.3 Study Feasibility PMF Routing
3.8.4 Study Main Spillway Alternatives
3.8.5 Study Main Spillway: Crest
3.8.6 Chute
3.8.7 Study Main Spillway Bucket
3.8.8 Downstream Hydraulics and Impacts
3.8.9 Main Spillway Foundation Drainage Treatment
3.8.10 Recommended Design
3.8.10.1 Layout
3.8.10.2 Gates and Hoists

3.9 POWER FEATURES

(A: Underground PH (UPH) Concept; B: Surface PH (SPH) Concept. The following work items are for both powerhouse concepts except applicable for "A" or "B" only when so marked).

3.9.1 Review Acres Concept: Civil
3.9.2 Review Acres Concept: Geotechnical
3.9.3 Review Acres Concept: Electrical
3.9.4 Review Acres Concept: Mechanical
3.9.5 Prepare Review Comments
3.9.6 Cost Comparison Studies Intake and Power Conduit Arrangement Alternates
3.9.7 Hydraulic Transient Studies - Surge Chamber
3.9.8 Head and Tail Tunnel Studies

3.9.9 Powerhouse Location and Arrangement Studies
3.9.10 Transformer Location and Arrangement Studies
3.9.10.1 Single Phase
3.9.10.2 Three Phase
3.9.11 Turbine Sizing and Setting
3.9.12 Evaluate the Need for Guard Valves
3.9.13 Generator Sizing, Setting
3.9.14 Generator Leads
3.9.15 SF-6 Switchgear
3.9.16 High Voltage Cables
3.9.17 Unit Unwatering
3.9.18 Tailwater Depression System
3.9.19 HVAC System
3.9.20 Cranes, Hoists
3.9.21 Miscellaneous Electrical Equipment
3.9.22 Miscellaneous Mechanical Equipment
3.9.23 Switchyard
3.9.23.1 Civil
3.9.23.2 Electrical
3.9.24 Control Building: Architectural
3.9.25 Control Building: Civil
3.9.26 Control Building: Electrical
3.9.27 Control Building: Mechanical
3.9.28 Powerhouse Access Tunnel (A)
3.9.29 Cable, Utility, Ventilation Shafts (A)
3.9.30 Powerhouse Access Shaft (A)
3.9.31 Yard (B)

3.10 INTERIM REPORT - POWER FEATURES, OUTLET WORKS

3.10.1 General Correspondence
3.10.2 Geology
3.10.3 Geotechical
3.10.4 Civil/Hydraulics
3.10.5 Electrical
3.10.6 Mechanical
3.10.7 Report

3.11 PROJECT ROADS AND YARDS

3.11.1 Layouts
3.11.2 Design, Surfacing, Drainage

3.12 PROJECT ACCESS ROAD

3.12.1 Input to Task Force Studies
3.12.2 Report on Environmental and Socioeconomic Impacts on Road Design

3.13 COST ESTIMATES

3.13.1 Quantity Take-Offs
3.13.2 Cost Estimate for Acres layouts

3.14 PROJECT MASTER SCHEDULE

- 3.14.1 Construction Scheduling - Civil Works
- 3.14.2 Installation Scheduling - E/M Works

3.15 INTERIM REPORT ON CONCEPTUAL STUDIES, PRELIMINARY MASTER SCHEDULE

- 3.15.1 General Correspondence
- 3.15.2 Geology
- 3.15.3 Geotechnical
- 3.15.4 Civil
- 3.15.5 Hydraulics
- 3.15.6 Hydrology
- 3.15.7 Electrical
- 3.15.8 Mechanical
- 3.15.9 Construction Costs
- 3.15.10 Schedule

3.16 PROJECT PERTINENT DATA

- 3.16.1 Civil
- 3.16.2 Geotechnical
- 3.16.3 Hydrology
- 3.16.4 Hydraulics
- 3.16.5 Electrical
- 3.16.6 Mechanical

3.17 PRELIMINARY DESIGN CRITERIA

- 3.17.1 Geotechnical
- 3.17.2 Civil
- 3.17.3 Hydraulic
- 3.17.4 Electrical
- 3.17.5 Mechanical

3.18 DRAFT -PROJECT CONCEPTUAL DESIGN REPORT, PROJECT MASTER SCHEDULE, COST ESTIMATES

- 3.18.1 General Correspondence
- 3.18.2 Geology
- 3.18.3 Geotechnical
- 3.18.4 Civil
- 3.18.5 Hydrology
- 3.18.6 Hydraulics
- 3.18.7 Electrical
- 3.18.8 Mechanical
- 3.18.9 Cost Estimates
- 3.18.10 Schedules

3.19 CONCEPTUAL DESIGN REPORT FINALIZATION

3.20 OPEN

3.21 OPEN

3.22 OPEN

3.23 PARTICIPATION IN OTHER TASKS

- 3.23.1 TASK 1 - Input for Project Management
- 3.23.2 TASK 2 - Input for Project Support Activities
- 3.23.3 TASK 4 - Input for Environmental Programs
- 3.23.4 TASK 5 - Coordination With TASK 3
- 3.23.5 TASK 5 - Field Investigation Programs
- 3.23.6 TASK 5 - Field Test Programs - Materials
- 3.23.7 TASK 5 - In-Situ Testing Programs
- 3.23.8 TASK 5 - Lab Testing Programs
- 3.23.9 TASK 5 - Preparation of Field Data for Design
- 3.23.10 TASK 6 - Input to Licensing Programs
- 3.23.11 TASK 7 - Input to Power Systems Studies
- 3.23.12 TASK 8 - Input to Public Participation Programs
- 3.23.13 TASK 9 - Preparations and Participation in Review Panel Meetings

3.24 CONSULTANTS AND INTERNAL REVIEW BOARD

- 3.24.1 Review Meetings
- 3.24.2 Correspondence
- 3.24.3 Reports

3.25 ACCESS, TRANSPORTATION, CONSTRUCTION FACILITIES, AND EMPLOYMENT TRAINING TASK FORCE (Eventual Task 38 Elevation)

- 3.25.1 Access
  - 3.25.1.1 Road
  - 3.25.1.2 Railroad
  - 3.25.1.3 Access Plan Report
- 3.25.2 Worker Transportation

3.26 DESIGN REFINEMENTS

- 3.26.1 Correspondence
- 3.26.2 Draft Report
- 3.26.3 Summary Report
- 3.26.4 Final Report
- 3.26.5 Computations
- 3.26.6 Cost Estimates
- 3.26.7 Report - Filing with FERC

3.27 STAGED CONSTRUCTION

- 3.27.1 Correspondence

3.27.2 Budget/Schedule
3.27.3 Cost Estimates

TASK 4 - ENVIRONMENTAL STUDIES

4.1 MANAGEMENT

4.2 WATER RESOURCES - General

- 4.2.1 Hydrologic and Hydraulic Studies
- 4.2.2 R&M Consultants
  - 4.2.2.1 General
  - 4.2.2.2 Progress Reports
  - 4.2.2.3 Trip Reports

4.3 FISH AND WILDLIFE RESOURCES - GENERAL

- 4.3.1 Aquatic Studies, General
  - 4.3.1.1 POS/Budget/Schedule
  - 4.3.1.2 AEIDC
  - 4.3.1.3 E. Woody Trihey
  - 4.3.1.4 Woodward-Clyde
  - 4.3.1.5 RIMS Tracking Program
  - 4.3.1.6 ADF&G (Aquatic)
    - 4.3.1.6.1 Monthly Report
  - 4.3.1.7 Milo Bell
  - 4.3.1.8 USFWS
  - 4.3.1.9 Entrix
  - 4.3.1.10 Instream Flow
  - 4.3.1.11 Economic and Environmental Comparisons Report
- 4.3.2 Vegetation, General
  - 4.3.2.1 POS/Budget/Schedule
  - 4.3.2.2 U of A, Palmer
  - 4.3.2.3 U of A, Fairbanks
  - 4.3.2.4 Vegetation Mapping (R.A. Kreig)
  - 4.3.2.5 TES
  - 4.3.2.6 USFWS Wetland Mapping
- 4.3.3 Wildlife, General
  - 4.3.3.1 POS/Budget/Schedule
  - 4.3.3.2 LGL
  - 4.3.3.3 U of A Fairbanks
  - 4.3.3.4 USFWS Modeling
  - 4.3.3.5 ADF&G (Game)
  - 4.3.3.6 Hemming (Dames & Moore)
  - 4.3.3.7 Rausch
  - 4.3.3.8 Gipson
- 4.3.4 Mitigation
  - 4.3.4.1 Aquatic
  - 4.3.4.2 Vegetation
  - 4.3.4.3 Wildlife
  - 4.3.4.4 Cultural Resources
  - 4.3.4.5 Socioeconomic
  - 4.3.4.6 Recreation

4.4 CULTURAL RESOURCES

- 4.4.1 POS/Budget/Schedule
- 4.4.2 U of A, Museum
- 4.4.3 Dekin
- 4.4.4 Archaeological District
- 4.4.5 Gail Thompson (HC&A)
- 4.4.6 Historical Research Associates (HRA)
- 4.4.7 Simco Cabin
- 4.4.8 Cultural Resources Investigation (WCC)

4.5 SOCIOECONOMICS

- 4.5.1 POS/Budget/Schedule
- 4.5.2 Surveys
  - 4.5.2.1 Intertie Workers
  - 4.5.2.2 Public Sector
  - 4.5.2.3 Terror Lake
  - 4.5.2.4 Navigation/Recreation User Survey
  - 4.5.2.5 Air Taxi Operator Survey
  - 4.5.2.6 Household and Business Surveys
- 4.5.3 Frank Orth & Associates
- 4.5.4 Alaska Department of Fish and Game
- 4.5.5 ISER - Resource User Survey

4.6 RECREATION AND AESTHETICS

- 4.6.1 POS/Budget/Schedule
- 4.6.2 OPEN
- 4.6.3 Recreation Development Plan
- 4.6.4 EDAW

4.7 LAND USE PLANNING

- 4.7.1 POS/Budget/Schedule
- 4.7.2 Land Field Services
- 4.7.3 Village Land Use Planning

4.8 AIR QUALITY

- 4.8.1 Correspondence
- 4.8.2 Reports

4.9 PROJECT ALTERNATIVES

- 4.9.1 POS/Budget/Schedule

4.10 WATER QUALITY

- 4.10.1 Correspondence
- 4.10.2 Reports

4.11 OPEN

4.12 ACCESS ROAD & RELATED ENVIRONMENTAL ACTIVITIES

4.12.1 POS/Budget/Schedule
4.12.2 Cultural Resource Study

4.13 OPEN

4.14 OPEN

TASK 5 - GEOTECHNICAL PROGRAM

5.1 MANAGEMENT FUNCTIONS

- 5.1.1 Planning and Coordination
  - 5.1.1.1 Anchorage
  - 5.1.1.2 Site
- 5.1.2 Quality Control
- 5.1.3 Safety and Environmental Protection
- 5.1.4 Permitting
- 5.1.5 Field Procedures
- 5.1.6 Office Procedures
  - 5.1.6.1 Warehouse
- 5.1.7 Quality Assurance Systems
- 5.1.8 Subcontracts
- 5.1.9 Subcontractors
  - 5.1.9.1 DENALI
  - 5.1.9.2 HLA
  - 5.1.9.3 R&M
  - 5.1.9.4 Interstate Exploration
- 5.1.10 Budgets
  - 5.1.10.1 General
  - 5.1.10.2 FY83
  - 5.1.10.3 FY84
  - 5.1.10.4 FY85
  - 5.1.10.5 FY86
- 5.1.11 Personnel
- 5.1.12 Geotechnical Progress Reports
  - 5.1.12.1 Annual
  - 5.1.12.2 Monthly
  - 5.1.12.3 Weekly
  - 5.1.12.4 Daily
- 5.1.13 Consultants
  - 5.1.13.1 Correspondence
  - 5.1.13.2 Reports
- 5.1.14 Geotechnical Reports
  - 5.1.14.1 Exploration Program Memos
  - 5.1.14.2 Geotechnical Design Memos
  - 5.1.14.3 Geology Reports
  - 5.1.14.4 Soils Reports
  - 5.1.14.5 Groundwater Reports
  - 5.1.14.6 Final Design Memo
  - 5.1.14.7 1983 Geotechnical Report
  - 5.1.14.8 Field Manuals
- 5.1.15 Seismic Monitoring System
- 5.1.16 Debriefing Memos

5.2 ROCK EXPLORATION

- 5.2.1 Borehole Logs
  - 5.2.1.1 Dam Centerline - River
  - 5.2.1.2 Dam Centerline - Abutments
  - 5.2.1.3 Upstream Cofferdam
  - 5.2.1.4 Downstream Cofferdam

5.2.1.5 Diversion Tunnel Intakes
5.2.1.6 Diversion Tunnel Outlets
5.2.1.7 Underground Powerhouse
5.2.1.8 Power Intake
5.2.1.9 Spillway
5.2.1.10 Other - Left Abutment
5.2.1.11 Other - Right Abutment

5.2.2 Pressure Test Logs
5.2.3 Borehole Geophysics
5.2.4 Rock Mechanics Test Data
5.2.5 Aggregate Test Data
5.2.6 Test Grouting Data
5.2.7 Equipment
5.2.7.1 Evaluations
5.2.7.2 Recommendations
5.2.7.3 Submittals
5.2.8 Technical Memos
5.2.9 Laboratory Tests
5.2.10 Field Notebooks
5.2.11 Daily Engineers Reports

5.3 SOILS EXPLORATION

5.3.1 Borehole Logs
5.3.1.1 Borrow Site C
5.3.1.2 Borrow Site D
5.3.1.3 Borrow Site E
5.3.1.4 Borrow Site F
5.3.1.5 Borrow Site H
5.3.2 Borehole Permeability Tests
5.3.3 Laboratory Tests
5.3.3.1 Borrow Site C
5.3.3.2 Borrow Site D
5.3.3.3 Borrow Site E
5.3.3.4 Borrow Site F
5.3.3.5 Borrow Site H
5.3.4 Test Pits and Trench Logs
5.3.5 In-Site Soil Tests
5.3.6 Technical Memos
5.3.7 Equipment
5.3.7.1 Field
5.3.7.2 Lab
5.3.8 Field Notebooks
5.3.9 Daily Engineers Report

5.4 SUPPORT EXPLORATION SERVICES

5.4.1 Regional Geology
5.4.2 Seismicity
5.4.3 Remote Sensing
5.4.4 Aerial Photography
5.4.5 Geophysics
5.4.5.1 Borehole
5.4.5.2 Surface

5.4.6 Permafrost/Cold Regions
5.4.7 Geologic Mapping and Cross Sections
5.4.7.1 Reservoir
5.4.7.2 Main Dam
5.4.7.3 Quarry
5.4.7.4 Relict Channels
5.4.7.5 Adits
5.4.8 Groundwater Test Data
5.4.9 Test Grouting
5.4.10 Ground Surveys
5.4.11 Air Strip
5.4.11.1 Laboratory Tests
5.4.12 Field Notebooks
5.4.12.1 Corps of Engineers
5.4.12.2 Acres American
5.4.12.3 Current
5.4.13 Daily Engineers Report

5.5 INSTRUMENTATION

5.5.1 Ground Temperature Surveys
5.5.1.1 Dam Site
5.5.1.2 Borrow D/Relict Channel
5.5.1.3 Borrow H
5.5.2 Groundwater Surveys
5.5.2.1 Dam Site
5.5.2.2 Borrow D/Relict Channel
5.5.2.3 Borrow H
5.5.3 Equipment
5.5.4 Contractors
5.5.5 Technical Memos
5.5.6 Field Trips

5.6 1984 GEOTECHNICAL PROGRAM

5.6.1 General
5.6.2 Staffing
5.6.3 Technical Specification
5.6.4 Field Manual
5.6.5 Field Orders
5.6.6 Report

TASK 6 - FERC LICENSE SUPPORT AND PERMITTING

6.1 REVIEW OF PROJECT DESIGN, OPERATION, AND ENVIRONMENTAL STUDIES - GENERAL, FEASIBILITY REPORT

6.2 APPLICATION PROCESS - GENERAL, LICENSE APPLICATION

- 6.2.1 FERC Supplemental Information Requests/List of Deficiencies
- 6.2.2 Responses to FERC Requests
  - 6.2.2.1 Draft Responses
  - 6.2.2.2 Final Responses
- 6.2.3 Agency Comments on License Application
- 6.2.4 Responses to Agency Requests/Comments on License Application
  - 6.2.4.1 Draft Responses
  - 6.2.4.2 Final Responses
- 6.2.5 Public Comments on License Application
  - 6.2.5.1 General Public
  - 6.2.5.2 Intervenors
- 6.2.6 Responses to Public Comments on License Application
  - 6.2.6.1 General Public
  - 6.2.6.2 Intervenors
- 6.2.7 Revisions to License Application
- 6.2.8 Application Submittal/Distribution
  - 6.2.8.1 Request for Application
  - 6.2.8.2 Distribution
- 6.2.9 OPEN
- 6.2.10 FERC Internal Management Document (Bear Book)
- 6.2.11 Regulatory Management Committee
- 6.2.12 Legal Counsel
- 6.2.13 Site Visits by FERC
- 6.2.14 FERC Meetings
- 6.2.15 OPEN
- 6.2.16 Response Schedule
- 6.2.17 Review Committee
- 6.2.18 Agency Site Visits
- 6.2.19 License Application Update 1985
  - 6.2.19.1 Comments on PCP
  - 6.2.19.2 General Correspondence
  - 6.2.19.3 Draft Amendment Review (July 1985)
  - 6.2.19.4 Presentation to APA Board October 2, 1985
  - 6.2.19.5 Draft License Amendment Cost
  - 6.2.19.6 Draft License Amendment Distribution (November 1985)
  - 6.2.19.7 Comments on Draft License Amendment
  - 6.2.19.8 Cost Estimates
- 6.2.20 Project Design Refinements
- 6.2.21 Workshops
  - 6.2.21.1 Red Model

6.2.21.2 FERC Scoping Document
6.2.22 FERC Scoping Document

6.3 PROJECT CHANGE CONTROL PROCEDURE

6.3.1 Correspondence

6.4 DRAFT EIS PROCESS

6.4.1 General
6.4.2 Agency Comments on DEIS
6.4.3 Responses to Agency Comments on DEIS
6.4.4 Public Comments on DEIS
6.4.5 Responses to Public Comments on DEIS
6.4.6 Power Authority Comments on DEIS
6.4.6.1 Draft - Policy
6.4.6.2 Draft - Technical
6.4.6.3 Final

6.5 FINAL EIS PROCESS

6.5.1 Agency Comments on FEIS
6.5.2 Responses to Agency Comments in FEIS
6.5.3 Power Authority Comments on FEIS

6.7 BEST MANAGEMENT PRACTICES MANUAL/PLANS

6.7.1 Correspondence
6.7.2 Investigation Memoranda
6.7.2.1 SPCC Plan
6.7.2.2 Fuel and Hazardous Waste Management
6.7.2.3 Erosion Control
6.7.2.4 Revegetation and Rehabilitation
6.7.2.5 Solid & Liquid Waste Management
6.7.3 BMP Manuals
6.7.3.1 Oil Spill Contingency Plan
6.7.3.2 Fuel and Hazardous Waste Management
6.7.3.3 Erosion Control and Revegetation and Rehabilitation
6.7.3.4 Solid and Liquid Waste Management
6.7.3.5 Water Supply

6.8 OPEN

6.9 PERMITTING - GENERAL

6.9.1 Federal, General
6.9.2 Federal, COE
6.9.3 Federal, EPA
6.9.4 Federal, FCC
6.9.5 Federal, DOT
6.9.6 Federal, DOE
6.9.7 Federal, DOI

6.9.8 Federal, Treasury - Alcohol, Tobacco and Firearms
6.9.9 BLM
6.9.10 Advisory Council on Historic Preservation
6.9.11 Bureau of Indian Affairs
6.9.12 NMFS
6.9.13 NPS
6.9.14 USFWS
6.9.15 State, General & Forms
6.9.16 State, ADEC
6.9.16.1 Oil Spills
6.9.17 State, ADF&G
6.9.18 State, ADPS
6.9.19 State, ADNR - Land
6.9.20 State, ADNR - Water
6.9.21 State, ADPDP
6.9.22 State, DOTPF
6.9.23 State, DOHSS
6.9.24 State, Local, General
6.9.25 State, Native Corporations
6.9.25.1 CIRI
6.9.25.2 AHTNA
6.9.25.3 TYONEK
6.9.25.4 Chickaloon-Moose Creek
6.9.26 Local, Mat-Su Borough
6.9.27 Local, Fairbanks - North Star Borough
6.9.28 Local, Municipality of Anchorage
6.9.29 Local, Transmission Line Routing
6.9.30 State, ADNR - Division of Parks
6.9.31 OMB, Division of Governmental Coordination
6.9.31.1 Alaska Coastal Management Program
6.9.32 Permit Status Reports

6.10 LAND ACQUISITION

6.10.1 CIRI
6.10.2 AHTNA
6.10.3 Ownership
6.10.4 DNR
6.10.5 Maps -Status Plats
6.10.6 Land Manager's Task Force
6.10.7 Land Field Services, Inc. (LFSI)
6.10.8 Land Disturbances
6.10.9 BLM Land Disposals
6.10.10 Land Acquisition Plan

6.11 FERC NEED FOR POWER HEARINGS

6.11.1 Correspondence
6.11.2 Witness Selection
6.11.3 Testimony
6.11.3.1 Arthur Allen (CLOSED)
6.11.3.2 William Batt
6.11.3.3 Ed Carter

6.11.3.4 Sherman H. Clark
6.11.3.5 Charles Debelius
6.11.3.6 Scott Goldsmith
6.11.3.7 Glenn E. Haringa
6.11.3.8 John W. Hayden
6.11.3.9 William Hutchinson (CLOSED)
6.11.3.10 Robert Keegan
6.11.3.11 Ned Lesnick
6.11.3.12 Luis Levy
6.11.3.13 Charles E. Mann
6.11.3.14 Leo Polivka (CLOSED)
6.11.3.15 Donald L. Schaible
6.11.3.16 Ronald Schnorr
6.11.3.17 Michael Scott
6.11.3.18 Kenneth Sorensen (CLOSED)
6.11.3.19 George Volland
6.11.3.20 William W. Wade
6.11.3.21 Klaus P. Rose
6.11.3.22 Ellen Hall
6.11.3.23 David Tillman
6.11.3.24 Tony Merritt

6.12 FERC ENVIRONMENTAL & DAM SAFETY HEARINGS

6.12.1 Correspondences
6.12.2 Witness Selection

6.13 OPEN

6.14 AGENCY CONSULTATION - GENERAL

6.14.1 ADNR
6.14.2 ADF&G
6.14.3 ADEC
6.14.4 DOI - USFWS
6.14.5 DOI - NPS
6.14.6 DOC - NMFS
6.14.7 Northern Alaska Environmental Center
6.14.8 Program/Generic Activity
6.14.9 Miscellaneous
6.14.10 DOI - BLM
6.14.11 DOT/PF
6.14.12 Alaska Land Use Council
6.14.13 Interagency Review Group (IARG)
6.14.14 Steering Committee
6.14.15 Mat-Su Borough
6.14.16 Agency Consultation Meetings
6.14.16.1 Aquatic
6.14.16.2 Terrestrial
6.14.16.3 Social Sciences
6.14.17 USEPA
6.14.18 ADR & CA

6.15 OPEN

6.16 REGULATORY INFORMATION MANAGEMENT SYSTEM (RIMS)

- 6.16.1 Acceptance Test Reports
- 6.16.2 System Logic
- 6.16.3 APA Monthly Status Reports
- 6.16.4 User's Manual
- 6.16.5 Correspondence
- 6.16.6 Special Reports
- 6.16.7 MSI Progress Reports
- 6.16.8 Permit Tracking Reports

6.17 OPEN

6.18 SETTLEMENT PROCESS

- 6.18.1 Correspondence
- 6.18.2 Internal Planning Meetings
- 6.18.3 Issues List
  - 6.18.3.1 Correspondence-General
  - 6.18.3.2 External Distribution
  - 6.18.3.3 RIMS Listing
  - 6.18.3.4 F-1. Altered Flow Regime
  - 6.18.3.5 F-2. Water Quality Parameters
  - 6.18.3.6 F-3. Altered Ice Processes
  - 6.18.3.7 F-4. Stream Morphology
  - 6.18.3.8 F-5. Impoundment Effects
  - 6.18.3.9 F-6. Physical Effects of Access
  - 6.18.3.10 F-7. Physical Effects of Transmission Line
  - 6.18.3.11 F-8. Water Quality and Quantity Effects
  - 6.18.3.12 F-9. Water quality and Stream Morphology
  - 6.18.3.13 F-10. Disturbance Effects
  - 6.18.3.14 F-11. Mitigation Options
  - 6.18.3.15 F-12. Post-construction Plan to Monitor
  - 6.18.3.16 W-1. Moose Carrying Capacity
  - 6.18.3.17 W-2. Black Bear Denning and Foraging
  - 6.18.3.18 W-3. Brown Bear Spring Foraging
  - 6.18.3.19 W-4. Habitat Reduction
  - 6.18.3.20 W-5. Dall Sheep Habitat Modification
  - 6.18.3.21 W-6. Accidents and Inhibition
  - 6.18.3.22 W-7. Inundation or Other Disturbance
  - 6.18.3.23 W-8. Changes in Wildlife Habitat and Movements
  - 6.18.3.24 W-9. Reduction in Wildlife Habitat
  - 6.18.3.25 W-10. Road Presence and use Effects

6.18.3.26 W-11. Deaths from Vehicle Collisions
6.18.3.27 W-12. Increased Hunting/Trapping
6.18.3.28 W-13. Other Disturbances to Wildlife
6.18.3.29 W-14. Construction Worker Transportation
6.18.3.30 W-15. Post-Construction Access
6.18.3.31 W-16. Refinement of Timing to Reduce Wildlife Impacts
6.18.3.32 W-17. Specific Mitigation Options
6.18.3.33 W-18. Preventive Measures
6.18.3.34 W-19. Plan to Monitor Impacts
6.18.3.35 R-1. Impacts on Fishing
6.18.3.36 R-2. Impacts on Hunting & Trapping
6.18.3.37 R-3. Loss of Whitewater
6.18.3.38 R-4. Impediments to Navigation
6.18.3.39 R-5. Bird-Watching and Hiking
6.18.3.40 R-6. Recreational Activities of Project Construction Workers
6.18.3.41 R-7. Opportunities/Recreation Plan
6.18.3.42 R-8. Restrictions of Recreational to Reduce Impacts
6.18.3.43 AE-1. Impacts of Borrow and Spoil Areas
6.18.3.44 AE-2. Aesthetic Mitigation Measures
6.18.3.45 C-1. Loss of Affected Cultural/ Historical Sites
6.18.3.46 C-2. Cultural Resources Mitigation Plan
6.18.3.47 AQ-1. Air Quality Impacts
6.18.3.48 AQ-2. Air Quality Mitigation
6.18.3.49 D-1. Risk & Effects of Dam Failure
6.18.3.50 D-2. Emergency Warning Plan
6.18.3.51 S-1. Changes in Subsistence Opportunities
6.18.3.52 S-2. Impacts on Life Style
6.18.3.53 S-3. Changes in Commercial Opportunities
6.18.3.54 S-4. Changes in Employment
6.18.3.55 S-5. Increased Burden on Mat-Su Borough
6.18.3.56 S-6. Impacts on Native Corporation Undeveloped Lands
6.18.3.57 S-7. Mitigation Options
6.18.3.58 S-8. Monitor Significant Impacts
6.18.3.59 L-1. Land Acquisition Program

6.18.4 Agencies

6.18.4.1 ADNR

6.18.4.2 ADF&G
6.18.4.3 ADEC
6.18.4.4 ADC&RA
6.18.4.5 DOI
6.18.4.6 NPS
6.18.4.7 NMFS
6.18.4.8 BLM
6.18.4.9 FWS
6.18.4.10 Department of Labor
6.18.4.11 Matanuska-Susitna Borough
6.18.4.12 AHTNA
6.18.4.13 US EPA
6.18.4.14 State Historic Preservation Office
6.18.4.15 COE
6.18.4.16 OMB
6.18.4.17 FERC
6.18.4.18 Intervenors
6.18.4.19 DOT/PF

6.18.5 Workshop
6.18.5.1 Aquatic Workshop I (Flow Regime)
6.18.5.2 Aquatic Workshop II (FY85 Plan of Study)
6.18.5.3 Terrestrial Workshop I (FY85 Plan of Study)
6.18.5.4 Social Sciences Workshop I (FY85 Plan of Study)
6.18.5.5 Aquatic Workshop III (Temperature and Ice Studies)
6.18.5.6 Aquatic Workshop IV (PhysicalProcesses)
6.18.5.7 Terrestrial Workshop II
6.18.5.8 Aquatic Workshop V (Water Quality)
6.18.5.9 Aquatic Workshop VI (Aquatic Habitat and Instream Flow)
6.18.5.10 Social Sciences Workshop II(Cultural Resources Program)
6.18.5.11 Aquatic Workshop VII
6.18.5.12 Terrestrial Workshop III
6.18.5.13 Social Science Workshop III
6.18.5.14 Cultural Resources (Predictive Models)

6.18.6 Issues List Matrix

6.18.7 Flow Regime
6.18.7.1 Correspondence
6.18.7.2 Meeting (November 20, 1984)
6.18.7.3 INSTREAM ICE
6.18.7.4 Instream Flow
6.18.7.5 Report

6.18.8 Settlement Meetings
6.18.8.1 February 22, 1985
6.18.8.2 March 11, 1985
6.18.8.3 March 22, 1985
6.18.8.4 April 5, 1985
6.18.8.5 April 22, 1985

6.18.8.6 April 29, 1985
6.18.8.7 May 17, 1985
6.18.8.8 June 10, 1985

6.19 LAND MANAGER'S TASK FORCE

6.20 OPEN

TASK 8 - PUBLIC PARTICIPATION

8.1 WORKING GROUP MEETINGS

- 8.1.1 Monthly Status Report

8.2 ANNUAL PLAN AND REPORT

8.3 PUBLIC INFORMATION GENERAL

- 8.3.1 Susitna Newsletter
- 8.3.2 Briefing Materials - Transmission Line
- 8.3.3 Briefing Materials - Hydro
- 8.3.4 Other Materials
- 8.3.5 Newspaper Articles
- 8.3.6 Slides
- 8.3.7 News Releases
  - 8.3.7.1 Trans Line
  - 8.3.7.2 FERC License Application
- 8.3.8 Interviews
- 8.3.9 Organization
  - 8.3.9.1 List
- 8.3.10 General Power Authority Public Information Materials
- 8.3.11 Results of Project Surveys

8.4 COMMUNITY CONSULTATION

- 8.4.1 Workshops/Meetings - Transmission Line
- 8.4.2 Workshops/Meetings - Hydro
  - 8.4.2.1 Public Meetings (April 13-25, 1984)
- 8.4.3 Teleconferences - Transmission Line
- 8.4.4 Teleconferences - Hydro
- 8.4.5 Other Meetings - Transmission Line
- 8.4.6 Other Meetings - Hydro
- 8.4.7 Agency Meetings

8.5 CITIZEN ADVISORY COMMITTEE

8.6 SITE TOURS

- 8.6.1 Site Tours Prior to Road Access
- 8.6.2 Site Tours After Road Access

8.7 RESPONDING TO COMMENTS

- 8.7.1 Comment Response - Transmission Line
- 8.7.2 Comment Response - Hydro
- 8.7.3 Comment Response - Other

8.8 LETTERS FROM CONCERNED GROUPS

8.9 PUBLIC SPEAKING OPPORTUNITIES

8.10 BUDGET

TASK 9 - EXTERNAL REVIEW PANEL

9.1 FORMATION/MEMBERSHIP

9.2 CORRESPONDENCE

- 9.2.1 General
- 9.2.2 Technical Issues
  - 9.2.2.1 Questions
  - 9.2.2.2 Responses

9.3 MEETINGS BY DATE

- 9.3.1 August 1983 Technical
- 9.3.2 August 1983 Environmental
- 9.3.3 April 1985 Staged Construction

9.4 SITE VISITS

TASK 12 - UPDATE SUSITNA DEVELOPMENT PLAN

12.1 PHASE I - RECONNAISSANCE - LEVEL REVIEW

- 12.1.1 General Correspondence
- 12.1.2 Planning Criteria
- 12.1.3 Review Previous Work
- 12.1.4 Identify New Sites - Data Development
- 12.1.5 Conceptual Layouts
- 12.1.6 Development Schemes
- 12.1.7 Operation Studies
- 12.1.8 Quantities and Costs
- 12.1.9 Rank Schemes - Economic Evaluation
- 12.1.10 Report

12.2 PHASE II - PREFEASIBILITY - LEVEL STUDY

- 12.2.1 General Correspondence
- 12.2.2 Office - Field Studies
- 12.2.3 Layouts
- 12.2.4 Quantities and Costs
- 12.2.5 Operation Studies
- 12.2.6 Environmental Assessment
- 12.2.7 Economic Evaluation and Optimization
- 12.2.8 Financial Evaluation
- 12.2.9 Report

TASK 16 - PROJECT PERMITTING

16.1 GENERAL

- 16.1.1 Correspondence
- 16.1.2 Status Reports
- 16.1.3 Land Field Services (LFSI)
- 16.1.4 CIRI/MOOLIN (CMJV)

16.2 STATE AGENCIES

- 16.2.1 General
- 16.2.2 Alaska Department of Commerce and Economic Development (ADCED)
- 16.2.3 Alaska Department of Community and Regional Affairs (ADCRA)
- 16.2.4 Alaska Department of Environmental Conservation (ADEC)
- 16.2.5 Alaska Department of Fish and Game (ADF&G)
- 16.2.6 Alaska Department of Natural Resources (ADNR)
  - 16.2.6.1 Camp Move
  - 16.2.6.2 Drilling
- 16.2.7 Alaska Department of Public Safety (ADPS)
- 16.2.8 Alaska Department of Transportation and Public Facilities (DOT/PF)
  - 16.2.8.1 Camp Move Temporary Use
- 16.2.9 Office of Management and Budget (OMB)
- 16.2.10 Alaska Railroad (ARR)

16.3 FEDERAL AGENCIES

- 16.3.1 General
- 16.3.2 Advisory Council on Historic Preservation (ACHP)
- 16.3.3 Alaska Power Administration (APA)
- 16.3.4 Bureau of Indian Affairs (BIA)
- 16.3.5 Bureau of Land Management (BLM)
  - 16.3.5.1 Watana Camp Relocation
  - 16.3.5.2 FY86 Drilling
- 16.3.6 Bureau of Mines (BOM)
- 16.3.7 Department of Defense - Army
- 16.3.8 Department of Defense - Air Force
- 16.3.9 Department of Housing and Urban Development (HUD)
- 16.3.10 Department of Interior (DOI)
- 16.3.11 Department of Transportation (DOT)
- 16.3.12 Federal Aviation Administration (FAA)
- 16.3.13 Federal Emergency Management Agency
- 16.3.14 National Marine Fisheries Service (NMFS)
- 16.3.15 National Park Service (NPS)
- 16.3.16 U.S. Army Corps of Engineers (COE)
- 16.3.17 U.S. Coast Guard

16.3.18 U.S. Environmental Protection Agency(U.S.EPA)
16.3.19 U.S. Fish and Wildlife Service (USFWS)

16.4 LOCAL AGENCIES/GOVERNMENTS

16.4.1 General
16.4.2 Municipality of Anchorage
16.4.3 Mat-Su Borough
16.4.3.1 Watana Camp Relocation
16.4.4 Fairbanks-North Star Borough

16.5 NATIVE ORGANIZATIONS

16.5.1 General
16.5.2 Cook Inlet Region Incorporated (CIRI)
16.5.3 AHTNA
16.5.4 Tyonek Native Corporation
16.5.5 Chickaloon-Moose Creek Native Association
16.5.6 Knikatnu, Inc.
16.5.7 Seldovia Native Association
16.5.8 Alexander Creek, Inc.
16.5.9 Ninilchik Native Association
16.5.10 Salamatof Native Association

TASK 29 - INDEPENDENT CONSULTANT SUPPORT

29.1 GENERAL

29.1.1 Correspondence
29.1.2 Budget
29.1.3 Tracking Forms

TASK 30 - DEVIL CANYON UPSTREAM STUDY

30.1 GENERAL

- 30.1.1 Correspondence
- 30.1.2 Budget
- 30.1.3 Background Information
- 30.1.4 Study Outline
- 30.1.5 Report

30.2 PRELIMINARY SITE ASSESSMENT

30.3 EVALUATION OF POTENTIAL SITES

- 30.3.1 General
- 30.3.2 Geotechnical
- 30.3.3 Seismic Refraction Surveys
- 30.3.4 Environmental Studies
- 30.3.5 Hydraulics/Hydrology
- 30.3.6 Civil/Structural
- 30.3.7 Economic
- 30.3.8 Cost Development

30.4 LOGISTICS

- 30.4.1 Correspondence

30.5 PERMITS

- 30.5.1 Correspondence

TASK 39 - LOGISTICS

39.1 SCOPE OF LOGISTICS MANAGEMENT

- 39.1.1 Office Administration
- 39.1.2 Weekly Reports
- 39.1.3 Time Sheets
- 39.1.4 Resumes
- 39.1.5 Misc. Correspondance
- 39.1.6 Procedures

39.2 SUBSISTANCE & LIFE SUPPORT IN THE FIELD

- 39.2.1 Camp Management - Watana Camp
- 39.2.2 Camp Operations & Maintenance (CIRI)
- 39.2.3 Watana Camp Records
- 39.2.4 Traffic Control
- 39.2.5 Safety Plan
  - 39.2.5.1 Incident Reports
- 39.2.6 Fire Protection & Prevention
- 39.2.7 Communications
- 39.2.8 Procurement
- 39.2.9 Recreation
- 39.2.10 Lodging
- 39.2.11 Potable Water

39.3 TRANSPORTATION

- 39.3.1 Fix Wing
- 39.3.2 Helicopter
- 39.3.3 Scheduling
- 39.3.4 POL
- 39.3.5 Records & Logs
- 39.3.6 Weather Report
- 39.3.7 Ground Transportation
- 39.3.8 Subcontractors

39.4 PROCUREMENT & EXPEDITING

- 39.4.1 Preparation of Purchase Order Request
- 39.4.2 POL - FUEL
- 39.4.3 Camp Food & Maintenance Supplies

39.5 SUPPORT SERVICES

- 39.5.1 CIRI/H&N - Watana Camp (Closed)
- 39.5.2 Air Logistic - Helicopter
- 39.5.3 Air Logistic - Fix Wing
- 39.5.4 Alyeska Air Service - Fix Wing
- 39.5.5 High Lake Lodge
- 39.5.6 Stephan Lake Lodge
- 39.5.7 Fog Lake Lodge
- 39.5.8 Talkeetna Motel
- 39.5.9 Fuel Three River

39.5.10 Fuel Akland
39.5.11 CIRI/Moolin J.V. - Watana Camp
39.5.12 Subcontractors

39.6 BUDGET

39.6.1 Budget
39.6.2 FY 83
39.6.3 FY 84
39.6.4 FY 85
39.6.5 Historical
39.6.6 FY 86

39.7 SPECIAL STUDIES

39.7.1 Review Acres Feasibility Study
39.7.2 Watana Camp
39.7.3 Watana Expansion
39.7.4 Watana Demobilization (Mothball)
39.7.5 Watana Care Taker Status
39.7.6 Watana Limited Operation
39.7.7 Watana Airfield - 2500 Foot Bush Field
39.7.8 Tent Camp
39.7.9 Watana Camp Historical
39.7.10 Solid Waste Disposal Site
39.7.11 Permits

39.8 MASTER PLAN

39.8.1 Correspondence
39.8.2 Watana Camp Relocation
39.8.2.1 Site Conditions
39.8.2.2 Cost Estimates
39.8.2.3 Correspondence (CMJV)
39.8.3 Interim Report
39.8.4 Initial Access Road

TASK 40 - NEED FOR POWER

40.1 GENERAL

- 40.1.1 Personnel
- 40.1.2 Schedule
- 40.1.3 Budget
- 40.1.4 Meetings

40.2 SUBCONTRACTORS AND CONSULTANTS

- 40.2.1 ISER
- 40.2.2 Battelle
- 40.2.3 Acres
- 40.2.4 Reaume
- 40.2.5 RMI
- 40.2.6 Clark
- 40.2.7 GE
- 40.2.8 RFP
- 40.2.9 Paul Weir Co.
- 40.2.10 Sweeney & Assoc.
- 40.2.11 Dept. of Revenue
- 40.2.12 R.W. Beck
- 40.2.13 Dames & Moore

40.3 OPEN

40.4 REPORTS BY HARZA/EBASCO (Drafts and Finals)

- 40.4.1 Phase - Economic Planning Process and Criteria
- 40.4.2 OPEN
- 40.4.3 Phase 2
- 40.4.4 Economic and Financial Update - Sept. 1983
  - 40.4.4.1 Reports
  - 40.4.4.2 Criteria
  - 40.4.4.3 Reviews
- 40.4.5 Economic and Financial Update - Feb. 1984
- 40.4.6 Feasibility Study - Nov 1985-Jan 1986

40.5 OPEN

40.6 RAILBELT UTILITIES

- 40.6.1 Chugach Electric
- 40.6.2 AML&P
- 40.6.3 Golden Valley Electric
- 40.6.4 Homer Electric
- 40.6.5 Matanuska Electric Association
- 40.6.6 Fairbanks Municipal Utilities
- 40.6.7 Seward Light & Power
- 40.6.8 Common Requests, Info.
- 40.6.9 Power Purchase Agreements
- 40.6.10 Railbelt Generation and Transmission Utility

40.7 STATE, FEDERAL AND LOCAL DATA

- 40.7.1 State
  - 40.7.1.1 Long Term Energy Plan
  - 40.7.1.2 Reports to Governor
  - 40.7.1.3 ADOR
  - 40.7.1.4 APUC
  - 40.7.1.5 DEPD
- 40.7.2 Federal
  - 40.7.2.1 COE
  - 40.7.2.2 Alaska Power Administration
  - 40.7.2.3 Local

40.8 MODELS

- 40.8.1 MAP - ISER
- 40.8.2 RED - Battelle
- 40.8.3 SAGE - OMB
- 40.8.4 OGP
- 40.8.5 EGEAS
- 40.8.6 PETREV - DOR
- 40.8.7 Communications Link - Harris & SDC
- 40.8.8 MAPS - GE
- 40.8.9 MJSENSO

40.9 LOAD FORECASTS

- 40.9.1 Forecasts
- 40.9.2 Conservation Programs

40.10 LOAD CHARACTERISTICS

40.11 POWER AND RESERVOIR OPERATIONS

- 40.11.1 Flow Data
- 40.11.2 Environmental Considerations
- 40.11.3 Simulation Models
- 40.11.4 Monthly Generation
- 40.11.5 Weekly Generation
- 40.11.6 Daily/Hourly Operation
- 40.11.7 Reservoir Data

40.12 FOSSIL FUEL PRICE, AVAILABILITY

- 40.12.1 Coal
- 40.12.2 Gas
- 40.12.3 Oil

40.13 SUSITNA

- 40.13.1 General
- 40.13.2 Data Available
- 40.13.3 Alternative Projects
- 40.13.4 Susitna Project Access

40.13.5 Susitna Project Functions
40.13.6 Susitna Project Schedules
40.13.7 Susitna Project Optimization

40.14 NON-SUSITNA HYDRO, THERMAL ALTERNATIVES

40.14.1 Existing Generation
40.14.2 Bradley Lake
40.14.3 Chakachamna
40.14.4 Other Non-Susitna Hydro (Rampart)
40.14.5 Coal-Fired Steam Plants
40.14.6 Gas Powered Units
40.14.7 Oil Powered Units
40.14.8 Non-conventional Units
40.14.9 North Slope Gas Alternatives

40.15 TRANSMISSION SYSTEMS

40.15.1 Existing Systems
40.15.2 Willow-Healy Intertie
40.15.3 Susitna Project Transmission
40.15.4 Alternative Systems Transmission

40.16 GENERATION SYSTEM EXPANSION (OGP)

40.16.1 General
40.16.2 Model
40.16.3 Susitna Hydro Systems
40.16.4 Non-Susitna Hydro Systems
40.16.5 All Thermal Systems

40.17 COST ESTIMATES, COST COMPARISONS, ECONOMIC ANALYSES

40.17.1 Unit Prices
40.17.2 Construction Cost Estimate
40.17.3 O & M Cost Estimates
40.17.4 Manpower Requirements
40.17.5 Economic Criteria
40.17.6 Economic Evaluation
40.17.7 Sensitivity Analyses

40.18 FINANCIAL ANALYSIS, FORECAST, MODEL CONTRACT

40.18.1 General
40.18.2 Financial Criteria
40.18.3 State Fund Availability
40.18.4 Financing Sources
40.18.4.1 REA
40.18.4.2 Tax Exempt Bonds
40.18.5 Computer Programs
40.18.6 Financial Analyses
40.18.7 Sensitivity Analyses
40.18.8 Model Contract

40.19 INTERTIE AGREEMENT

40.19.1 Correspondence
40.19.2 Draft Agreement

TASK 41 - TRANSMISSION FACILITY SITING AND LICENSE

41.01 PROPOSAL PROCESS

41.1 WILLOW TO KNIK ARM (WEST)

- 41.1.1 Technical Adequacy
- 41.1.2 Agency Coordination
- 41.1.3 Public Participation
- 41.1.4 Environmental

41.2 HEALY TO ESTER (FAIRBANKS)

- 41.2.1 Technical Adequacy
- 41.2.2 Agency Coordination
- 41.2.3 Public Participation
- 41.2.4 Environmental

41.3 WATANA TO GOLD CREEK

- 41.3.1 Technical Adequacy
- 41.3.2 Agency Coordination
- 41.3.3 Public Participation
- 41.3.4 Environmental

41.4 KNIK ARM (WEST) TO ANCHORAGE

41.5 HEALY TO WILLOW

41.6 WILLOW TO KNIK ARM (EAST)

41.7 SUBSTATION SITE SELECTION

41.8 MANAGEMENT TRANSMISSION LINES

41.9 MANAGEMENT SUBSTATIONS

41.10 INFORMATION

- 41.10.1 Correspondence
- 41.10.2 Meetings
- 41.10.3 Investigation Memorandum
- 41.10.4 T-Line Routing through Military Property

41.11 VISUAL RESOURCE ASSESSMENT AND SUPPORT SERVICES

- 41.11.1 Correspondence
- 41.11.2 Proposals
- 41.11.3 Vegetation Mapping

41.12 REPORT

41.13 PROGRESS REPORT

41.14 SUBCONTRACTS

41.14.1 Commonwealth Associates (including Intertie)
41.14.2 Jones & Jones

41.15 BUDGET

41.16 ALTERNATIVE TRANSMISSION LINE ROUTING - WILLOW TO ANCHORAGE THROUGH PALMER

41.17 LAND FIELD SERVICES

41.18 POWER SALES AGREEMENTS

41.19 O & M

41.19.1 O&M Agreements
41.19.2 O&M Plans
41.19.3 Emergency Action Plans
41.19.4 Inspection Plans

41.20 STAGE CONSTRUCTION

TASK 42 - HYDROLOGIC AND HYDRAULIC STUDIES

42.1 GENERAL COORDINATION

- 42.1.1 Correspondence
- 42.1.2 Schedule
- 42.1.3 Budget
- 42.1.4 Work Program
- 42.1.5 Consultants
- 42.1.6 Hyraulic Laboratory

42.2 HYDROLOGIC/HYDRAULIC MODELING

- 42.2.1 Reservoir Operation - RESOP
- 42.2.2 Reservoir Temperature/Ice/Sediment (DRYSEM)
- 42.2.3 Instream Hydraulic
- 42.2.4 Instream Temperature
- 42.2.5 Instream Ice
- 42.2.6 Sediment (General)
- 42.2.7 Slough Groundwater
- 42.4.8 Confluence Area Sediment Modeling - IIHR

42.3 PROBABLE MAXIMUM FLOOD - SPILLWAY DESIGN FLOOD

42.4 FLOOD FREQUENCY ANALYSES - CONSTRUCTION DIVERSION FLOOD

- 42.4.1 Studies

42.5 STREAMFLOW TIME SERIES - GLACIAL MELT (Streamflow/Meteorologic Data Collection/Analysis)

42.6 GLACIAL STUDIES

42.7 REQUEST FOR INFORMATION

- 42.7.1 FERC
- 42.7.2 State and Federal Agencies
- 42.7.3 Write Chapter 2 of License

42.8 STATUS MEETING

42.9 STREAMFLOW FORECASTING

- 42.9.1 Glacial Studies
- 42.9.2 Hydex Corporation

42.10 CONE VALVES

TASK 45 - CONSTRUCTION MANAGEMENT

45.01 PROPOSAL PROCESS