

Energy Information Administration U.S. Department of Energy

Instructions for Uranium Industry Annual Survey Form EIA-858

Survey Year 2000

For assistance concerning the Form EIA-858, contact the Survey Manager on (202) 287-1911 or email at douglas.bonnar@eia.doe.gov

I. Purpose

The Form EIA-858, "Uranium Industry Annual Survey," is used to collect data about the U.S. uranium industry. The data are collected under authority of the section 13(b) of the Federal Energy Administration Act of 1974 (Public Law 93-275) and section 1015 of the Energy Policy Act of 1992 (Public Law 102-486).

The data are used in these Energy Information Administration (EIA) publications: *Uranium Industry Annual* and *Annual Energy Review*.

II. Form EIA-858 Format

The two Schedules of Form EIA-858 collect industry data about these topics:

<u>Schedule</u>	<u>Topic</u>
A	Uranium Raw Materials Activities
B	Uranium Marketing Activities

Schedules A and B, which are included in this package, are mailed to respondents in late December of the Survey Year.

III. Who Must Respond

The Form EIA-858 must be completed by firms and individuals that were involved in the U.S. uranium industry (that is, within the 50 States, District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions) during the Survey Year. Specific criteria that define conditions for responding to all or portions of Schedules A and B are provided below under General Instructions.

IV. Sanctions

The timely submission of EIA-858 by those required to report is mandatory under section 13(b) of the Federal Energy Administration Act of 1974 (FEAA) (Public Law 93-275), as amended. Failure to respond may result in a civil penalty of not more than \$2,500 for each violation, or a fine of not more than \$5,000 for each willful violation. The government may bring a civil action to prohibit reporting violations which may result in a temporary restraining order or a preliminary or permanent injunction without bond. In such civil action, the court may also issue mandatory injunctions commanding any person to comply with these reporting requirements.

V. When to Respond

Schedules A and B of the Form EIA-858 must be filed with the EIA by March 1, following the end of the Survey Year.

VI. How and Where to Respond

Schedules A and B of Form EIA-858 can be submitted by mail, by facsimile transmission, or by email for micro-computer diskette versions (see below).

Mail: Hard copy and micro-computer diskette versions should be mailed to: (A pre-addressed envelope is provided)

U.S. Department of Energy
EI-52
Survey Form EIA-858
1000 Independence Avenue, SW
Washington, D.C. 20077-5651

Facsimile (FAX): Respondents may submit the hard copy Form EIA-858 by FAX. The FAX transmission numbers at the Energy Information Administration, 950 L'Enfant Plaza, SW, Washington, D.C. 20024, are shown below.

Fax Transmission	Fax Verification
(202) 287-1946	(202) 287-1911
(202) 287-1944	(202) 287-1911

To assure successful data transmission by FAX, respondents should verify receipt of complete and legible data pages at EIA by calling a verification number shown above upon completion of data transmission. The name of the person who verifies receipt of the transmission should be noted.

Micro-Computer Form EIA-858: The micro-computer diskette version of Form EIA-858 operates on an IBM PC, PC/XT, PC/386, or compatible computer with a floppy-disk drive (3 1/2 inch) plus a hard disk drive. It requires a minimum system memory of 512 kilo-bytes and the Disk Operating System (DOS), Version 2.0 or above.

Respondents may submit the diskette version of the Form EIA-858 Schedule A and/or Schedule B to the Survey Manager at email address douglas.bonnar@eia.doe.gov. If you did not receive the diskette version and wish to use one, please contact the Survey Manager.

OVERVIEW AND CRITERIA FOR SCHEDULES A AND B

Overview

Your firm's name and address are preprinted on Form EIA-858. Selected data also are preprinted, where applicable, on Schedule A for uranium properties, mills, and plants and on Schedule B for contracts and uranium inventories. The pre-printed information, reported on your firm's Form EIA-858 for the previous Survey Year, is duplicated here to aid in completing the current Form EIA-858. Review all preprinted information, and update, change, or correct it as necessary to report current Survey Year information.

A set of blank pages is provided for reporting data on other (not preprinted) uranium-reserves properties, mills, plants, and market commitments that your firm acquired during the Survey Year.

On page 1, complete the section "Applicability of Schedule A and B" by stating (in column b or c) whether Schedule A (Parts I through IV) and Schedule B apply to your firm for the Survey Year. If Parts II and III apply, enter in column d the total number of reserves properties and mills and plants you are reporting. If Schedule B applies, enter the total number of contracts you are reporting.

Within a Part that is applicable to your firm, an Item that is not applicable should be marked as "NA." If zero or none is the answer to an Item, please enter a "0" or "none" for that Item, not the symbol "NA".

On page 1 of each schedule, give the name and phone number of contact person for the data reported on Schedules A and B.

If Schedules A and B are separated for completion by different persons in your firm, please provide a copy of the instructions with each Schedule.

If more space is needed to report information for any Item, use the COMMENTS spaces provided at the end of each Schedule. Please key each comment or note to its Item number.

A Glossary is provided at the end of the instructions.

Criteria for Responding to Form EIA-858

In the Criteria below, controllers are firms or individuals that, by virtue of title, contract, lease, or concession, own properties with uranium reserves or are responsible for the

exploration and development of uranium reserves and the extraction of uranium as a primary product or byproduct; own or are responsible for the operation of uranium mines, mills, or processing plants; or are the operators of uranium-industry joint ventures and reclamation.

Criteria for Schedule A

Firms that during the Survey Year:

A. Were controllers or were identified in EIA records as the most recent controllers of uranium-reserves properties and uranium mines, mills, or plants in the United States, including, but not limited to, those named on pages 3 and 5 of Form EIA-858;

B. Were involved as controllers of uranium exploration and development ventures in the United States: U.S. firms that conducted in foreign countries uranium exploration and development activities that were funded by U.S. operations;

C. Incurred expenditures for uranium exploration in the Survey Year or plan such expenditures during the following year;

D. Held uranium reserves in specific properties by right of title, contract, lease, or concession and that were directly responsible for the development and exploitation of those reserves;

E. Were controllers of uranium mining properties, including firms that were controllers of mines under joint-ownership agreements or by contract agreements; firms that were controllers of in situ uranium recovery facilities; or

F. Were controllers of commercial extraction of uranium from ore (or leach solution) or as a byproduct of the processing of a different commodity.

Criteria for Schedule B

Firms that during the Survey Year:

G. Held existing contracts covering the Sale, Purchase, Exchange, Loan, or Loan Repayment of uranium or entered into similar new contracts; was the importer and/or exporter of uranium materials in conjunction with such contracts;

H. Held uranium materials and/or offered the service of storing such materials at any site in the United States under a holding agreement when the ownership of those materials remain with a foreign entity;

I. Offered the service of enriching uranium materials in any form in the isotope ^{235}U ;

J. Was the actual entity that imported and/or exported uranium materials in conjunction with providing the services of uranium enrichment, conversion, fuel fabrication, and/or transportation, regardless of who owned the uranium materials that were shipped;

K. Made actual deliveries of uranium feed materials to any enrichment supplier;

L. Held inventories of uranium in any form;

M. Owners and operators of civilian nuclear power reactors that maintained a forward-coverage, uranium-inventory policy and/or loaded fuel assemblies into the reactors;

N. Owners and operators of civilian nuclear power reactors that purchased uranium enrichment services.

Schedule A: Uranium Raw Materials Activities Survey Year 2000 Instructions

General Outline

The four Parts of Schedule A cover:

Part	Topic
I	Exploration and Development
II	Reserves and Mine Production by Property
III	Milling and Processing
IV	Employment (<i>including contractor personnel</i>)

Data reported should be current through December 31 of the Survey Year.

Part I. Exploration and Development

Item 1. Joint Venture Arrangement

The controlling partner in a joint venture should report on the full scope of activities conducted under the venture. To prevent duplicate reporting, the other venture partners should not report data for those same activities.

Item 2. Exploration Land Status and Cost for the Survey Year

Enter in the table the amount of land acquired in the Survey Year for uranium exploration. Examples of land that should be reported included: mineral fee, patented and unpatented mining claims, and options to purchase mineral fee land. Exclude land held for uranium production, and land held in foreign countries.

Item 3. Exploration and Development Drilling by State and Total Cost

Enter by state the number of drill holes and footage completed during the Survey Year for exploration (include assessment drilling) and development. Do not include drilling done in foreign countries. Definitions of drilling categories are provided in the Glossary.

For projected drilling in the following year, enter on the line provided the numbers of drill holes and footage planned for exploration and development.

Item 4. Other Exploration and Development Expenditures

Report all other expenditures directly associated with your company's domestic exploration and development

effort. Include expenditures for assessment work other than drilling, geological research; geochemical, and geophysical surveys; costs incurred by field personnel in the course of exploration work; and overhead and administrative charges directly associated with supervising and supporting field and exploration activities. Do not include expenditures for land acquisitions and drilling programs reported under Items 2 and 3 above or for internal corporate charges, such as directors' salaries, not directly associated with the company's exploration effort.

Item 5. Foreign Contributions to Exploration Expenditures

Report the percentages of your total exploration expenditures (sum of Items 2 + 3 + 4) contributed by foreign-controlled companies in the Survey Year and planned for the Following Year. Foreign controlled means majority-owned by non-U.S. entities.

Item 6. Expenditures for Uranium Exploration in Foreign Countries

Report total exploration expenditures by country for the Survey Year and amount planned for the Following Year.

General Procedure for Responding to Parts II, III and IV

In a case of jointly-owned land, mine, mill, plant, or other entity for which data are requested under one or more items of Form EIA-858, the operating (or controlling) partner must report the total data for that entity. That is, the data relative to each owner's participation in activities germane to an Item must be included in your response given on Form EIA-858.

Part II. Reserves and Mine Production by Property

Under Part II, the following data are requested for each property with uranium reserves controlled by your firm during the Survey Year: quantity of uranium reserves and related costs, reserves-estimation parameters, and conventional and nonconventional mine status and related mine production.

If, during the Survey Year, your firm controlled other (not preprinted) uranium-reserves properties also complete Items 7 through 12 for each such property. A blank set of Items 7 through 12 (pages 3 and 4) is provided. Append additional pages at the end of Part II.

Item 7. Property Information

Property Name and Location: Enter property name and location information as requested. Give longitude and latitude to the nearest degree and minute.

Ownership: Self explanatory.

Controllership: If your firm no longer controls this property, give name, address, and phone number of the party to which it was transferred. If the property reverted to a State or Federal agency during the Survey Year, provide the name and address of the agency.

Status: Check only one box. If a mine was temporarily closed or permanently closed, you must provide the date (MM/YY). Temporarily closed includes long-term closure, but is short of permanent closure.

Studies: Check all boxes that apply.

Item 8. Property Uranium Reserves Estimates

For each reserves property, enter in the table your estimates of uranium reserves for the forward cost categories of \$15, \$30, \$50, and \$100 by the mining method used to calculate the reserves. Report the reserves anticipated to be recoverable considering ore recovery and dilution. If reserves estimates are not available for the forward cost categories shown, enter in the far right columns the cost category (or categories) you chose for estimating reserves and the quantity of reserves estimated at that cost by mining method.

Give the date (month/year) the reported estimates of reserves were made.

Item 9. Operating Costs Used in Estimating Reserves

Enter in the table the costs used in estimating reserves for this property. Definitions of cost terms are provided in the Glossary. If the costs for your reserves estimates are defined differently, enter your costs and state how they are defined (that is, what each cost includes) under Comments for Schedule A on page 6. For openpit and underground mining, provide costs per ton of ore mined. For in situ leaching or other leaching, provide the average cost per pound of U_3O_8 recovered. Report all costs in Survey Year dollars.

Item 10. Total Capital Costs by Mining Method

Enter in the table total capital costs (which includes development, construction, and equipment expenditures) for the chosen mining method for a mine or ISL field and for a mill or plant associated with this property. Report all costs in Survey Year dollars.

Item 11. Drilling and Reserves Estimation Parameters

Give total number of holes drilled, including barren holes, in the reserves outline on this property during the Survey Year and total holes drilled prior to the Survey Year.

Enter in the table, by applicable mining method (openpit, underground, or in situ leach), the parameters used in calculating the reported estimates of reserves for this property.

Item 12. Mine Production and Shipments of Ore or Pregnant Solutions

Report quantities of ore mined to the nearest ton and pounds mined to the nearest pound of U_3O_8 and V_2O_5 .

Uranium and Vanadium Mined: Enter in the table the quantities of uranium and vanadium mined during the Survey Year for each applicable mining method. For in situ leaching, state the grade of ore. If quantities are reported for "Other" mining method, specify the method in the space provided.

Shipment of Ore or Pregnant Solutions: Enter in the table the quantities of ore or pregnant solutions shipped to mills, plants, or to other sites during the Survey Year. State the name of each mill, plant, or other site to which the shipments were made.

Part III. Uranium Milling and Processing

Under Part III, data are requested on the status of mills and plants, their operations, and production of uranium concentrate for the Survey Year.

If your firm controlled other (not preprinted) uranium milling and processing facilities during the Survey Year, also complete Items 13 through 16 for each such facility. A set of blank Items 13 through 16 (page 5) is provided. Append additional pages at the end of Part III.

Item 13. Mill or Plant Information

Name and Location: Enter mill or plant name and location information as requested. Provide longitude and latitude to the nearest degree and minute.

Ownership: Self explanatory.

Controllership: If your firm no longer controls this facility, give the name, address, and phone number of the party to which it was transferred. Mark one box to indicate the nature of the arrangement between your firm and the party to which the facility was transferred.

Item 14. Rated Capacity

Rated capacity is synonymous with nominal capacity and nameplate capacity.

Item 15. Operating Status During Survey Year

If the facility was not operated during the Survey Year, the date of the facility closing must be entered.

Note: The EIA might publish your firm's responses for the *Rated Capacity* and the *Status at End of Survey Year* for each mill and plant in selected data reports. Refer to the section "Provisions Regarding Confidentiality of Information" on page xiii.

Item 16. Uranium Concentrate Production

Conventional Mills and Nonconventional Plants: Enter requested data on uranium concentrate production for each facility. Please include all concentrate produced from cleanup/reclamation operations. Mark all boxes necessary to indicate sources of "Other Mill Feed" and "Total Plant Feed."

Part IV. Employment

Item 17. Employment by State

Enter the number of person-years (see Glossary) by state expended by your firm during the Survey Year in uranium exploration, mining, milling, processing, and reclamation (include staff and contract personnel). Include person-years expended in assessment work in the total for exploration. Include person-years expended for standby and maintenance operations, site-security personnel and for contracted manpower paid for by your firm during the year. See "**Person Year**" in the Glossary.

Schedule B: Uranium Marketing Activities Survey Year 2000 Instructions

Item 1. Contract

General Overview:

Item 1 covers all *Sale, Purchase, Exchange, Loan, Loan Repayment*, and/or *Other* contracts (transactions) and *Custody* contracts active during the Survey Year. Exchanges include physical-origin and ownership exchanges. Report each contract that was active or that was completed (performed) by your firm during the Survey Year. Selected data for contracts reported as active on your firm's Form EIA-858 for the prior Survey Year are preprinted under Item 1. If, during the Survey Year, your firm held or entered into other contracts, a separate Item 1 must be completed to report each such new contract, including those completed during the year. A blank Item 1 page is provided. If a "preprinted" contract was completed (performed) during the Survey Year, please check the Contract Completed box, and be sure to return that contract with your survey form.

EIA must be able to account for all *transfers of title to uranium materials* during the Survey Year. Any transaction that involved a transfer of title, i.e., the Sale, Purchase, Exchange, Loan, Loan Repayment, and/or Other should be reported. A separate Item 1 must be completed to report all information requested under Items 1.A through 1.F for a transfer-of-title contract during the Survey Year. **Please correct all preprinted information on the form.**

Under certain conditions, a Sale or Purchase of separate work units (SWU) in the secondary market constitutes a transfer of title to uranium. A contract that involves, in fact, a transfer of title to enriched uranium for a title to natural uranium, or vice-versa, should be reported as an Exchange. Uranium materials of foreign ownership that were physically stored or held at any of your company's sites during the Survey Year should be reported under Item 1.D.2, Custody Transactions.

Under Item 2., owners and operators of civilian nuclear power reactors are required to report their purchases of enrichment services during the Survey Year under the provisions of Section 1015 of the Energy Policy Act of 1992 (P.L. 102-486).

Please append to Schedule B any additional Item 1 pages, data copied from an actual contract, or other information that will assist the EIA in utilizing the data reported under Item 1 for your contracts.

Specific Instructions

Contract Completed: Check if this survey year delivery is the last delivery under the terms of this contract.

Item 1.A Other Party Name: The other party or parties named in the contract.

Item 1.B Date Contract Signed: Give the date the contract was originally signed. If applicable, give the latest date it was renegotiated and check whether this was price related.

Item 1.C Contract Type:

Spot Contract - A one-time delivery of the entire contract quantity to occur within one year of contract execution.

Long-Term Contract - One or more deliveries to occur after a year following contract execution.

Note: Short-term and medium-term types are not being reported now and previously reported contracts of those types have been changed/preprinted as a long-term contract.

Item 1.D.1 Transfer of Title: Indicate whether a contract is a Sale, Purchase, Exchange, Loan, Loan Repayment, and/or Other contract by marking the appropriate boxes with a number. If Other, specify. If more than one transaction type is involved, mark the first with the number 1, the second with number 2, and so on. For a Loan or Loan Repayment, indicate whether your firm was the Lender or the Borrower. A purchase or sale of SWU that, in effect, transferred title of enriched uranium for natural uranium (or vice-versa) should be reported as an Exchange. **NOTE:** An Exchange must be marked appropriately as **Sent** and **Received**.

Item 1.D.2 Custody Transactions: A contract that involved taking custody to uranium materials under a storage or holding agreement should be reported under this item. Examples are uranium materials entering the United States under a contribution of capital arrangement (without a transfer of title to the custody company) or uranium materials of foreign ownership stored at a U.S. company's site pending notification from the owner concerning further disposition of these materials. If Other, please specify.

Note: The question relating to intracompany transfer of materials in order to meet the contractual obligation being reported applies both to transfer of title and custody transactions. Please answer **Yes** or **No**, as appropriate.

Item 1.D.3 Match Sales Transactions: Check this block only if this transaction involved matched sales of uranium.

Item 1.E Country Codes: Codes for most countries are listed. If you enter on the form a different country code (i.e., not included under **1.E**), please give the code and country name in the space marked **NRC or Other**.

Note: EIA accepted the recommendation that the country codes be consistent with the Nuclear Regulatory Commission (NRC) nomenclature, but will not be changed until we have a new windows-based EIA-858 survey system completed. EIA-858 will still use its country codes and will accept the NRC country codes.

Item 1.F. Uranium Deliveries: (Quantities in Thousand Pounds U₃O₈ Equivalent)

Mark the **“Not Applicable”** box if deliveries of uranium materials were not made during the Survey Year but are scheduled for **future deliveries**.

For each contract, report the separate quantities of uranium delivered by date (MM/DD), material type, price, whether material was imported or exported, the country of origin, whether material was sent or received, and the pricing mechanism.

U₃O₈ means uranium oxide.

UF₆ means uranium hexafluoride.

Item 1.F.1 U₃O₈: In the columns under the heading “U₃O₈” enter the actual quantity and price specified in the contract for each delivery of U₃O₈ during the Survey Year. Note that prices should not be reported for Exchange, Loan, and Loan Repayment contracts.

Items 1.F.2 and 1.F.3: In columns under the headings **“2. Natural UF₆”** and **“3. Enriched Uranium”** check the appropriate box and enter the U₃O₈ equivalent component quantity and price specified in the contract for each delivery of natural UF₆ and enriched uranium during the Survey Year. In the price, do not include the conversion service and enrichment service components. Note that prices should not be reported for Exchange, Loan, and Loan Repayment contracts.

Items 1.F.4/5/6: Fill in the columns **“Imported From” (F.4)**, **“Exported To” (F.5)**, and **“Country of Origin” (F.6)** with a country code from **Item 1.E** above. If the total quantity of uranium delivered under a contract came from two or more countries of origin, you must “split up” the quantity by country and report each separate quantity, price, and country of origin on a separate line under **Item 1.F**.

Item 1.F.4 Imported From: Indicate that your firm received the foreign-origin uranium under this contract by entering in each appropriate row the **Country Code** (from **1.E**) for the country of the company reported in **Item 1.A**, if it is a firm that is located outside the United States. This includes purchases, exchanges, loans, and loan repayments.

Do not fill in the column **“F.4”** for foreign-origin uranium to which your firm takes title from a company located in the United States.

Item 1.F.5 Exported To: Indicate that your firm sent the uranium under this contract by entering in each appropriate row the **Country Code** (from **1.E**) for the country of the company reported in **Item 1.A**, if it is a firm that is located outside the United States. This includes sales, exchanges, loans, and loan repayments.

Fill in the column **“F.5”**: (A) If your firm is delivering uranium to a foreign company and that company will take title to the uranium after it has exited the United States; (B) If your firm is delivering uranium to a foreign company that will take title within the United States and will then ship the uranium to a foreign destination; (C) If your firm is delivering uranium to a foreign company through a uranium transportation firm that will take delivery within the United States and will then ship the uranium to a foreign destination.

Item 1.F.6 Country of Origin: Enter the **Country Code** (from **1.E**) of the country in which the uranium was mined.

Items 1.F.7 and 1.F.8: Enter the corresponding number you entered in **Item 1.D.1 “Transfer of Title”** for Received or Sent.

Items 1.F.9 through 1.F.12: Pricing Mechanisms: Report whether the pricing arrangement under the contract is specified as base-price escalated or fixed price, or whether the price is based on a spot market price. If the contract specifies a different pricing mechanism, mark **“Other”** and briefly describe the arrangement on page 10 under **“Comments for Schedule B”**. Note that pricing mechanisms should not be reported for Exchange, Loan, and Loan Repayment contracts.

Note: The market-related **“No Floor”** and **“Floor”** pricing mechanisms were deleted from Item 1.F as recommended to EIA.

Item 1.F Future Deliveries: In the columns under the heading **“U₃O₈” (F.1)** and/or columns under the headings **“Natural UF₆”/“Enriched Uranium” (F.2/3)** report the minimum (Min) and maximum (Max) quantities as stated in the contract for each year, to allow the option of either

increasing or decreasing quantities. If a future delivery is “fixed,” report that same quantity under both “Min” and “Max.” Please fill in columns **F.4 through F.12** as appropriate using same guidance above.

Note: (Matched Sales Transactions as reported in **Item 1.D.3** for Future deliveries only): If matched sales for future deliveries are from both the U.S. and Russia total the U.S. and Russian quantity and use the **Item 1.E** code “USR” for country of origin. This country code (USR) is for matched sales future deliveries only.

Item 2. Enrichment Services Purchased by Owners and Operators of Civilian Nuclear Power Reactors: Report purchases of enrichment services made during the Survey Year. Report individual quantities in units of separate work units (SWU), not thousand SWU, purchased by date of delivery, seller’s name, the country where the enrichment service was performed (country where enrichment plant is located), and the appropriate type of contract (Spot or Long-Term). Check the box “Not Applicable” if no SWU was purchased. A purchase of SWU through assignment of an enrichment contract should be reported under this item.

Note: A continuation sheet (page 8A) is provided for all deliveries over 20. Please do not use this sheet unless you have more than 20 deliveries.

Item 3. Uranium Inventories: State the inventory quantities, both domestic- and foreign-origin, as of the end of the Survey Year: (A) to which your firm held title and/or held under financial lease; and (B) uranium reported under 1.D.2 that was foreign owned but that was stored at a site controlled by your firm. Reported quantities should agree with inventory quantities reported last year and with data provided elsewhere in Form EIA-858. That is, inventory quantities should reflect last year’s amounts with adjustments for subsequent stock changes, purchases, sales, exchanges, loans, and usages, etc., reported on other parts of this form. Please revise the inventory amounts pre-printed for the prior Survey Year to report any corrections to those data as may be appropriate.

Item 4. Owners and Operators of Civilian Nuclear Power Reactors Uranium Inventory Policy: Mark the box to indicate whether your company has an inventory policy. If **Yes**, fill in the table for each applicable type of inventory. The sum of inventory amounts should equal your total desired inventory at the end of the Survey Year.

Item 5. Uranium Used In Fuel Assemblies in the Survey Year: (Owners and Operators of Civilian Nuclear Power Reactors only) Report only the total of unirradiated new fuel assemblies loaded into the reactor(s) during the Survey Year and during the prior year by origin. Do not include uranium removed from a reactor that subsequently will be reloaded. Please revise the amounts pre-printed for the prior Survey Year to report any corrections to those data as may be appropriate.

Item 6. Actual Enrichment Feed Deliveries in the Survey Year: Enter the quantities of uranium feed materials (U.S.-origin feed in **item 6.A** and foreign-origin feed in **item 6.B** by individual countries of origin) shipped to the U.S. Enrichment Corporation (USEC) enrichment plants.

Enter the quantities of uranium feed materials (U.S.-origin feed in **item 6.C** and foreign-origin feed in **item 6.D** by individual countries of origin and enrichment source country) shipped to non-U.S. enrichment plants.

Do not include deliveries placed in your usage agreement account that are not intended for withdrawal until in the next calendar year or later. Withdrawals of enriched uranium from your usage agreement account in the Survey Year, however, should be included as appropriate in your response(s) to **item 6.A** or **6.B**.

State under **item 6.E** the U₃O₈ equivalent of USEC separate work units (SWU) that your firm acquired in the secondary market during the Survey Year.

Item 7. Projected Enrichment Feed Deliveries and Unfilled Market Requirements: In the left-hand column, enter your firm’s total projected enrichment feed shipments to enrichment service suppliers (USEC and foreign suppliers) for each year. Include enriched uranium to be received through all purchase and exchange contracts in effect as of the end of the Survey Year. Exclude feed deliveries of uranium scheduled for a cancelled reactor, unless the enriched product will be used in another of your firm’s reactor units.

In the right-hand column, enter your firm’s total unfilled market requirements for each year.

Note: The total projected shipments in the left-hand column are the contracted deliveries plus unfilled requirements reported in the right-hand column.

GLOSSARY

Acquisition Cost: Cost of acquiring mining and production rights to a uranium property.

Assessment Work: The annual or biennial work performed on a mining claim (or claims), after claim location and before patent, to benefit or develop the claim and to protect it from relocation by third parties.

Break-even Cutoff Grade: The lowest grade of material that can be mined and processed considering all applicable costs, without incurring a loss or gaining a profit.

Capital Cost: Cost of mine development and mill or plant construction and the equipment required for the production of uranium from a property, excluding sunk costs.

Contract-Specified Price: The delivery price determined when a contract is signed. It can be a fixed price or a base price escalated according to a given formula.

Development Drilling: Drilling done to determine more precisely size, grade, and configuration of an ore deposit subsequent to the time the determination is made that the deposit can be commercially developed.

Direct Milling Cost: Operating costs directly attributable to the processing of ores or other feed materials including labor, supervision, engineering, power, fuel, supplies, reagents, and maintenance.

Direct Mining Cost: Operating cost directly attributable to the mining of ore including costs for labor, supervision, engineering, power, fuel, supplies, equipment replacement, maintenance, and taxes on production.

Exploration Drilling: Drilling done in search of new mineral deposits, on extensions of known ore deposits, or at the location of a discovery up to the time when the company decides that sufficient reserves are present to justify commercial development. Assessment drilling is reported as exploration drilling.

Enriched Uranium: Uranium in which the ^{235}U isotope concentration has been increased to greater than the 0.711 percent ^{235}U (by weight) present in natural uranium.

Enrichment Services: (See Separative Work Units).

Forward costs (uranium): The operating and capital costs that will be incurred in any future production of uranium from in-place reserves. Included are costs for labor, materials, power and fuel, royalties, payroll taxes, insurance, and general and administrative costs that are

dependent upon the quantity of production and, thus, applicable as variable costs of production. Excluded from forward costs are prior expenditures, if any, incurred for property acquisition, exploration, mine development, and mill construction, as well as income taxes, profit, and the cost of money. *Note:* By use of forward costing, estimates of reserves for ore deposits in differing geological settings can be aggregated and reported as the maximum amount that can theoretically be extracted to recover the specified costs of uranium oxide production under the listed forward cost categories.

Haulage Cost: Cost of loading ore at a mine site and transporting it to a processing plant.

Indirect Cost: Costs not directly related to mining or milling operations, such as overhead, insurance, security, office expenses, property taxes, and similar administrative expenses.

In Situ Leach Mining (ISL): The recovery, by chemical leaching, of the valuable components of an ore body without physical extraction of the ore from the ground. Also referred to as “solution mining.”

Mill Capital: Cost for constructing and equipping a plant for processing ore or other feed materials.

Mine Capital: Cost for exploration and development, pre-mining stripping, shaft sinking and mine development (including in situ leaching), and the mine plant and its equipment.

Nuclear electric power (nuclear power): Electricity generated by an electric power plant whose turbines are driven by steam produced by the heat from the fission of nuclear fuel in a reactor.

Nuclear reactor: An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

Other Capital Costs: Costs for items or activities not included elsewhere under capital-cost tabulations, such as for and decommissioning, dismantling, and reclamation.

Other Operating Costs: Costs for other items or activities not included elsewhere in operating-cost tabulations, but required to support the calculation of a cutoff grade for ore reserves estimation.

Person Year: One whole year, or fraction thereof, worked by an employee, including contracted manpower. It is expressed as a quotient (to two decimal places) of the time units worked during a year (hours, weeks, or months) divided by the like total time units in a year. For example: 80 hours worked is 0.04 (rounded) of a person year; 8 weeks worked is 0.15 (rounded) of a person year; 12 months worked is 1.0 person year. Contracted manpower includes survey crews, drilling crews, consultants, and other persons who worked under contract to support your firm's ongoing operations.

Processing: Uranium-recovery operations at a mill, in-situ leach plant, byproduct plant, or other type of recovery operation.

Reserve Cost Categories of \$15, \$30, \$50, and \$100 per Pound U_3O_8 : Classification of uranium reserves estimated by using break-even cutoff grades that are calculated based on forward-operating costs of less than \$15, \$30, \$50, and \$100 per pound U_3O_8 .

Royalty Cost: A share of the profit or product reserved by the grantor of a mining lease, such as a royalty paid to a lessee.

Separative Work Units (SWU): The standard measure of enrichment services. The effort expended in separating a mass F of feed of assay x_f into a mass P of product assay x_p and waste of mass W and assay x_w is expressed in terms of the number of separative work units needed, given by the expression

$$SWU = WV(x_w) + PV(x_p) - FV(x_f),$$

where $V(x)$ is the "value function," defined as

$$V(x) = (1-2x) \ln ((1-x) / x).$$

Sunk Cost: Part of the capital costs actually incurred up to the date of reserves estimation minus depreciation and amortization expenses. Items such as exploration costs, land acquisition costs, and costs of financing can be included.

Uranium Concentrate: A yellow or brown powder obtained by the milling of uranium ore, processing of in situ leach mining solutions, or as a byproduct of phosphoric acid production.

Uranium Exportation: The actual or future delivery of uranium to a firm located outside the United States.

Uranium Hexafluoride: A white solid obtained by chemical treatment of U_3O_8 and which forms a vapor at temperature above 56 degrees Centigrade. UF_6 is the form of uranium required for the enrichment process

Uranium Importation: The actual or future delivery of foreign-origin uranium from a firm located outside of the United States.

Uranium Oxide: Uranium concentrate or yellowcake.

Uranium Property: A specific tract of land with known uranium reserves that could be developed for mining.

Uranium Reserves: Estimated quantities of uranium in known mineral deposits of such size, grade, and configuration that the uranium could be recovered at or below a specified production cost with currently proven mining and processing technology and under current law and regulations. Reserves are based on direct radiometric and chemical measurements of drill hole and other types of sampling of the deposits. Mineral grades and thickness, spatial relationships, depths below the surface, mining and reclamation methods, distances to milling facilities, and amenability of ores to processing are considered in the evaluation. The amounts of uranium in ore that could be exploited within the chosen forward-cost levels are estimated utilizing available sampling, engineering, geologic, and economic data in accordance with conventional engineering practices.

Yellowcake: A natural uranium concentrate that takes its name from its color and texture. Yellowcake typically contains 70 to 90 percent U_3O_8 by weight. It is used as feedstock for uranium fuel enrichment and fuel pellet fabrication.

PROVISIONS REGARDING CONFIDENTIALITY OF INFORMATION

The following information and data elements will not be treated as confidential by the EIA:

- a. Rated capacity of a conventional mill (under Schedule A, Item 14).
- b. Rated capacity of a nonconventional plant (under Schedule A, Item 14).
- c. Operating status of a facility at the end of the Survey Year (under Schedule A, Item 15).

Otherwise, the Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the Energy Information Administration to provide company-specific data to the Department of Justice, or to any other Federal agency when requested for official use, which may include enforcement of Federal law. The information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE); to any Committee of Congress, the General Accounting Office, or other Congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order. The information contained on this form will be kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. 552, the DOE regulations, 10 C.F.R. 1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. 1905.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in this determination, respondents should demonstrate to the DOE that, for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed.