

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

November 21, 1973

Paul Hayes, Chief, Equal Opportunity Branch
Oak Ridge Operations Office

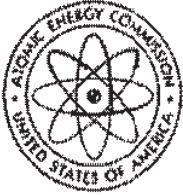
ALLIED CHEMICAL COMPANY, METROPOLIS, ILLINOIS

This is in response to your request for an EEO evaluation of subject facility in connection with a proposed AEC contract.

A compliance review was completed in September 1972 by our North Central Area Contract Compliance Office. Based on that review and subsequent progress reports, we find the facility to be in compliance with 41 CFR 60. In addition, there is no other facility of Allied Chemical reviewed by AEC whose EEO performance is considered unsatisfactory at this time.

A handwritten signature in cursive script, reading "Armin Behr", is positioned above the typed name.

Armin Behr, Assistant Director
for Contract Compliance
Office of Civil Rights Compliance



UNITED STATES
ATOMIC ENERGY COMMISSION

OAK RIDGE OPERATIONS
P.O. BOX E
OAK RIDGE, TENNESSEE 37830

AREA CODE 615
TELEPHONE 483-8611

November 26, 1973

Files

MEETING WITH HEADQUARTERS PERSONNEL REGARDING ALLIED CONVERSION CONTRACT

On November 23, 1973, I met with George Quinn, Ace Schwennesen and Bill Devine to discuss the position which Oak Ridge plans to take in negotiations with Allied and to ascertain what commitments may have been made at the Headquarters' level to Allied.

The points covered are as follows:

1. FEED

I raised the question as to whether there was a commitment to provide Allied with low sodium concentrate noting that this is the best material in the AEC stockpile (highest percent U_3O_8) and further if low sodium material is to be furnished do we do so in spite of the cost.

Quinn advised that we are to give Allied preferential treatment on sodium, however, if any problems are created in doing so and we cannot resolve them with Allied we are to go back to Headquarters. I advised Quinn that in discussions with NLO last week they advised that giving the high quality material to Allied would not interfere with their ability to make suitable blends at NLO and would not cause our refinery costs to increase.

2. YIELD

I advised Headquarters staff that for the last 18 months of operations our overall yield from concentrate to UF₆ has been 99.93%. A previous 5-year average was 99.86%. Quinn advised that the question of yield was open for discussion and that we should start negotiating on a yield of 99.93% but not go below 99.86% as a minimum. I noted that under the previous contract that we had with Allied that they had to pay us for the difference between their actual yield and 100% of the U furnished.

3. DRUMS

I raised the question whether there had been any commitments to Allied on retention of the concentrate drums. I pointed out that we had been selling cleaned drums for about \$1.30 with unusable ones sold as scrap or buried at Fernald. Quinn advised that we should retain possession of the drums with the option to sell to Allied for a price equivalent to what we have been getting on resale. (It may be desirable for us to have Allied clean the drums and store them at their site until a sufficient number have been collected to warrant for a sale rather than have the drums shipped to Paducah).

4. DELIVERY

Since the price quoted to Allied includes an allowance for shipping from Fernald to Paducah was our option that the UF₆ should be delivered f.o.b. Paducah. Quinn concurred in this.

5. CYLINDERS

I asked whether any commitments have been made to Allied as to furnishing them UF₆ cylinders and if so the number, length of time, conditions, (loan or rented). Quinn's reaction was there should be no need to furnish cylinders to Allied since they have repeatedly stated that it was possible for them to ship material on essentially a moment's notice. I advised him that it was possible that they may want cylinders in sufficient numbers to permit them to start processing immediately upon receipt of concentrate on the basis that all of their cylinders were filled and there would be a week to two weeks delay from the time they could ship to us and have empty cylinders returned. Quinn stated that we should rent cylinders to them but should check to see whether calculations of the price to be paid Allied included anything related to cylinders. (A check reveals there was not).

6. SAMPLING OF CONCENTRATE

I advised the group that we understood there should be no resampling of concentrate but to utilize the data available to the AEC that was used for establishing the purchase of the material. Quinn advised that we should go with the existing samples unless we need to resample for some reason of our own.

7. SAMPLING OF PRODUCT

I advised them that it was our plan to do any sampling of product at our plant with Allied having the right to witness and to take the samples. He concurred in this approach.

8. QUANTITY OF MATERIAL TO BE CONVERTED IN FY 74

I asked Quinn whether the quantity to be converted in FY 74 was firm at 4230 tons despite the fact that there had been a month's slippage of what was originally contemplated for starting time of conversion. Quinn advised that the quantity was firm unless we have a funding problem which might justify reserving some as a contingency for budget purposes, i.e., retain a portion of the material on an option basis until later in the fiscal year. As things currently stand we will overproduce by a slight amount due to the fact that operations at Paducah and NLO were not scaled back until the end of November. This equates to about 850 tons more through the NLO refinery than shown in the budget. It might be prudent, due to the slippage, to negotiate 3700 tons firm with 530 tons optional with the option being exercised sometime during the early spring when we have a better feel what the actual costs will be in-house.

9. FEED PRIORITY

I advised Headquarters that we plan to give the commercially converted material second priority only to toll enriching contracts and preferential to in-house production. The group concurred in this approach.

10. LETTER CONTRACT

I advised Headquarters that our counsel was not in favor of writing a Letter Contract in view of his earlier experience with Allied in drafting a Letter Contract and then having differences in securing agreement on the final contract. I pointed out the Oak Ridge staff was preparing a draft contract which we hope to be able to negotiate to a final contract when Allied visits on November 29 and 30.

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11. PAYMENT

I advised them that we plan to negotiate on this subject on the basis that we could pay on acceptance of the product but prior to feeding with an allowance being made for a heel and then correcting payment to final weights. It would be preferable, however, to wait until after a cylinder is fed and make payment since at that point it could be made on an actual quantity of material delivered.

12. FINANCIAL RESPONSIBILITY FOR MATERIAL AND PAYMENT OF LOSSES

I advised the group that we propose to make Allied financially responsible for material while it is in their custody and consider it fungible with any other concentrate or UF_6 that they might have on hand. We would propose basing the value on the average price of material in the concentrate stockpile which is equivalent to roughly \$8.00/lb. U_3O_8 and that we would check the actual figure with the Controller prior to writing it into the contract. Quinn raised the question as to whether the value should be based on the current market price. It was agreed that I would check the matter of price with the Controller. I later discussed the pricing matter with Charles Troell and it was his opinion that it should be at the average price of the material in the stockpile and he agreed to check this further and advise prior to our meeting with Allied as to what figure should be used. Quinn also raised the question of whether processing losses should be made up with material rather than dollars. I noted that Allied might not have the material and would prefer dollars thus the desire to have a figure. Material would be preferable. Whatever figure is adopted will also be used in calculating any differences between the negotiated yield and the quantity of material actually delivered to us.

13. CONVERSION PRICE

I advised the group that it was our understanding that this is not a negotiable item and they re-affirmed this understanding:

Charles A. Keller
Charles A. Keller, Director
Uranium Enrichment Oprns. Div.

OU:CAK

CC: R. J. Hart	J. T. Keohane
J. H. Hill	B. M. Robinson
W. H. Henderson	Doran Fletcher
R. Elson	

A G R E E M E N T

[illegible]

W I T N E S S E T H:

WHEREAS, Customer desires to have its U_3O_8 concentrates (hereinafter "concentrates") converted into natural uranium hexafluoride (hereinafter " UF_6 ");

WHEREAS, Allied Chemical has the know-how and facilities and is willing to perform such conversion;

NOW, THEREFORE, the parties hereto, in consideration of the covenants set forth in this Agreement, agree as follows:

1. CONCENTRATES

Customer shall deliver to Allied Chemical at Allied Chemical's Metropolis, Illinois, Works (hereinafter "said Works"), natural uranium concentrates, meeting specifications set forth in Exhibit A, under heading "Standard Concentrates", attached hereto and hereby made a part hereof, at such times and in quantities sufficient to produce all UF_6 to be delivered to Customer by Allied Chemical hereunder, as specified in

hereunder. Allied Chemical shall accept delivery of such concentrates delivered by Customer hereunder fail to meet the specifications set forth in Exhibit A and designated as "Standard Concentrates", Allied Chemical shall accept delivery of such concentrates up to the "Maximum Limit Concentrates" specifications, but surcharges set forth in Exhibit A shall apply for such deviations in specifications. If Customer delivers to Allied Chemical any concentrates not meeting such "Maximum Limit Concentrates" specifications, Allied Chemical shall have the right to reject such materials.

2. CONVERSION - QUANTITY

Allied Chemical shall convert said concentrates into UF_6 for, and deliver the same to Customer on the basis of a 99.5% yield of the uranium contained in said concentrates, and Customer shall accept UF_6 so converted at such time and in the quantities specified in said Exhibit D.

The quantities of U as UF_6 to be delivered to Customer during the term hereof shall not be less than _____ pounds nor more than _____ pounds, except as otherwise may be agreed to by the parties hereto in writing.

3. QUALITY OF URANIUM HEXAFLUORIDE

The UF_6 converted and delivered hereunder shall conform to the specifications therefor given in Exhibit B attached hereto and made a part hereof; provided, however, that if the United States Atomic Energy Commission (hereinafter "AEC") changes its specifications for UF_6 to be effective before delivery of the UF_6

hereunder, Allied Chemical, if technically feasible and without major change to its plant, shall convert said concentrates to meet the new specifications, with all additional costs, if any, caused by such change in specifications to be for Customer's account.

Allied Chemical may in addition require Customer, if necessary, to supply concentrates of specifications different from those given in Exhibit A hereto and may adjust delivery schedules to enable it to so process the concentrates to meet said new specifications.

4. DELIVERY, CONTAINERS AND TRANSPORTATION

A. Concentrates shall be delivered to Allied Chemical, f.o.b. said Works, in 55-gallon non-returnable, open-head drums according to schedule in said Exhibit D. If any portion of the concentrates delivered by Customer hereunder is rejected by Allied Chemical, Customer shall replace such concentrates within sixty (60) days of the date of telegraphic or written notice of such rejection, and Allied Chemical after such date reserves the right to reject such replacement concentrates. In case of either such rejection, deliveries of UF_6 affected thereby may be adjusted by Allied Chemical to meet latter's production schedules.

B. UF_6 shall be delivered to Customer, f.o.b. said Works, in accordance with schedule in said Exhibit D, in appropriate containers which will be provided by Allied Chemical. Such containers shall be acceptable to the AEC. Customer shall use its best efforts to have Enrichment Plant(s) return empty containers to Allied Chemical within thirty (30) days after delivery. Customer shall upon written request of Allied

Chemical, exercise all rights it may have under its enrichment contract with respect to return of, or loss or damage to the containers in the possession of said Enrichment Plant(s) and shall grant to Allied Chemical the right to participate in any claims resulting from such loss or damage and shall not agree to settlement of such claims without Allied Chemical's written concurrence.

C. Allied Chemical shall, upon the written request of Customer, arrange on latter's behalf for transportation of and insurance on the UF_6 from Allied Chemical's said Works to a location of the AEC to be designated by Customer, and for return of empty cylinders from said AEC location to Allied Chemical's said Works. Costs of such transportation, insurance and other costs connected therewith shall be for Customer's account. Possession of the UF_6 shall pass to Customer or the carrier, as Customer's agent, f.o.b. Allied Chemical's said Works. Allied Chemical shall, at Customer's request, pay such transportation, insurance and other costs on behalf of Customer and bill Customer for same.

5. CONVERSION CHARGES, SURCHARGES AND ADJUSTMENTS

A. Customer shall pay to Allied Chemical for conversion of said concentrates to UF_6 and transportation of such UF_6 :

- (i) The sum of \$ United States currency per pound of contained uranium delivered in such UF_6 (hereinafter "Base Charge").

- (ii) Surcharges set forth in Exhibit A (hereinafter "Surcharges"), if said concentrates deviate from the specifications set forth in said Exhibit A under heading "Standard Concentrates" but at least meet specifications given in Exhibit A under heading "Maximum Limit Concentrates".
- (iii) Transportation, insurance and other costs as provided in Paragraph 4.C hereof.

B. To provide for changes in the costs of Labor and All Other Costs, said Base Charge shall be adjusted as follows:

(1) Labor Adjustments:

The Base Charge shall be adjusted on the basis of the monthly reports of Average hourly earnings of production workers in the Manufacturing Industries, Non-durable goods industries division, Chemicals and allied products subdivision, compiled and published by the United States Department of Labor, Bureau of Labor Statistics, in the Monthly Labor Review (hereinafter "average hourly earnings"), as follows: For each \$0.01 per hour change, if any, in the said average hourly earnings for the month of shipment from the published annual average hourly earnings figure for the base period (calendar year 1965) which is \$2.89, the Base Charge shall be correspondingly increased or decreased \$0.00108.

(ii) Adjustment for All Other Costs:

The Base Charge shall be adjusted on the basis of the monthly reports in the Indexes of wholesale prices, Industrial Commodities compiled and published by United States Department of Labor, Bureau of Labor Statistics in the Monthly Labor Review (hereinafter "wholesale commodity index") as follows: For each 1/10 point change, if any, in said monthly commodity index for the month of shipment from the published annual average wholesale commodity index for the base period (calendar year 1965) which is 96.4, the Base Charge shall be correspondingly increased or decreased \$0.000647.

(iii) Changes in Average Hourly Earnings or Wholesale Commodity Index:

If the composition of the average hourly earnings and/or wholesale commodity index and/or the reference base period (1967=100) under (i) and (ii) above are changed during the period hereof, they shall be adjusted to the applicable basis on September 1, 1965, or as nearly so as is practical for the purpose of adjustment of conversion charge. In the event they are discontinued, a mutually acceptable basis for adjustment purposes shall be negotiated for the balance of the period hereof; provided, however, that if the parties fail to agree on such acceptable basis

within thirty (30) days after the beginning of negotiations thereon, or within such additional time period acceptable to the parties hereto, then the matter of ascertaining reasonable substitute basis shall be settled in accordance with the Rules of the American Arbitration Association.

C. Contained uranium delivered in UF_6 product shall be determined as follows:

- (i) The official weight of product delivered shall be that weight ascertained by the AEC or by a weigher designated by the AEC.
- (ii) The official weight of UF_6 delivered shall be determined by subtracting the weight of cation fluoride impurities in the product, as determined by actual analysis performed by the AEC, or by a laboratory designated by said Commission, from the official weight of product delivered. The cation fluoride impurities in the product to be determined by analysis shall be those listed in the UF_6 specifications, Exhibit B, attached hereto and hereby made a part hereof.
- (iii) Contained uranium delivered shall be calculated by multiplying the official weight of UF_6 delivered by the conversion factor 0.67618.

D. Customer shall make payments to Allied Chemical for the UF_6 delivered hereunder as follows:

- (i) A preliminary payment equivalent to the total charges specified in Paragraph 5.A(i), (ii) and (iii), hereof, and preliminary escalation charges specified in Paragraph 5.B, hereof, based on the latest available indices at time of shipment, for each delivery of UF_6 hereunder consistent with the delivery schedule therefor established by Customer in accordance with this Agreement, computed on the basis of Allied Chemical's weight of contained uranium and Allied Chemical's invoice, therefor.
- (ii) A final payment to adjust for the difference between the amount paid pursuant to Paragraph 5.D(i) above and the amount due pursuant to Paragraph 5.A(i), (ii) and (iii) based upon the final escalation indices applicable, and the final weight of such UF_6 ascertained by the AEC. Date of shipment of UF_6 - not date of invoicing - shall determine which escalation charges, if any, apply.
- (iii) Payments pursuant to Paragraphs 5.D(i), (ii) and (iii) shall be made within fifteen (15) days after receipt of invoice from the party entitled to such payments.

6. SAMPLING, WEIGHING AND ASSAY OF CONCENTRATES

Sampling, weighing (including moisture determination), assay and impurity analysis of concentrates shall be performed in accordance with the provisions of Exhibit C attached hereto and made a part hereof, and the results shall be binding on both parties to this Agreement. In any case, appropriate charges for such weighing and sampling shall be for Customer's account, except where otherwise provided in said Exhibit C.

7. TERM OF AGREEMENT

This Agreement shall be effective as of the date hereof and, except for payments to be made and obligations which have previously accrued hereunder, shall continue through
or, until delivery of all UF₆ hereunder, whichever is earlier.

8. FORCE MAJEURE

Failure of Customer or Allied Chemical to make or take any delivery hereunder (or portions thereof) when due, if occasioned by (a) act of God or the public enemy, fire, explosion, perils of the sea, flood, drought, war, riot, sabotage, accident, embargo; or (b) without limiting the foregoing circumstances, any circumstance of like or different character beyond the reasonable control of the party so failing; or (c) interruption of or delay in transportation, inadequacy or shortage or failure of supply of materials or equipment, breakdowns, labor trouble from whatever cause arising and whether or not the demands of the employees involved are reasonable and within said

party's power to concede; or (d) compliance by Allied Chemical or Customer with any order, action, direction or request of any governmental officer, department, agency, authority, or committee thereof; and (e) whether in any case the circumstance now exists or hereafter arises, shall not subject said party to any liability to the other, and if such contingency continues for more than fifteen (15) days, Allied Chemical may, at its option, reschedule deliveries of UF₆ delayed by such contingency for the earliest possible delivery time; provided, however, that if such contingency continues for more than six (6) months, on at least thirty (30) days written notice, the other party shall have the right to cancel the deliveries affected by such force majeure cause and this Agreement shall be reduced by the amount of deliveries so cancelled. In the event of any such contingency, the party affected shall use its best efforts to remedy the cause in the shortest practicable time; provided, however, that this shall not apply to the settlement of labor disputes which shall be within the sole discretion of the party affected.

9. TAXES

Any federal, state or municipal tax or other governmental charge (other than corporate income or franchise taxes) upon the ownership, possession, production, sale, use, conversion and/or transportation of said concentrates and UF₆ shall be for Customer's account.

10. LICENSE

Customer shall obtain, prior to any delivery of

U₃O₈ or UF₆ hereunder, and shall keep in full force and effect during the term of this Agreement, any and all licenses or other authorizations that may be lawfully required by the AEC, any successor thereto, or by any other federal or state or local authority in order that Customer or any party on its behalf can legally take title to and/or possession of said U₃O₈ or UF₆, and Customer shall supply to Allied Chemical proof of such license or other authorization on request. Allied Chemical shall obtain, prior to any delivery of U₃O₈ or UF₆ hereunder, and shall keep in full force and effect during the term of this Agreement, any and all licenses or other authorizations that may be lawfully required by the AEC, any successor thereto, or by any other federal or state or local authority in order that Allied Chemical or any party on its behalf can legally take possession of said U₃O₈ or UF₆, and Allied Chemical shall supply to Customer proof of such license or other authorization on request.

11. TITLE AND RISK OF LOSS

Title to concentrates and UF₆ converted therefrom by Allied Chemical hereunder shall at all times be and remain in Customer. Possession by Allied Chemical of said concentrates shall be deemed to have started upon delivery of same at said Works and possession by Customer of UF₆ shall be deemed to have started on delivery of same to Customer at said Works. Notwithstanding the foregoing, Allied Chemical may commingle said concentrates and UF₆ with other concentrates and UF₆

respectively, in its possession and meeting the specifications for said materials given in said Exhibits A and B. Allied Chemical assumes the risk and liability for loss of or damage to said concentrates and to the UF_6 converted therefrom while same are in Allied Chemical's possession provided, however, that in case of such loss or damage Allied Chemical, at its option, shall either: (a) replace the concentrates so lost or damaged; or (b) pay to Customer its then cost of replacing same or its then cost of replacing the concentrates contained in any converted UF_6 so lost or damaged (as may be applicable), but not to exceed Eight Dollars (\$8.00) per pound of U_3O_8 contained in said concentrates.

12. CLAIMS AND LIABILITY

(a) Failure of either party to give notice of any claim on account of weight, quality, loss or damage to any shipment of concentrates or UF_6 delivered hereunder within sixty (60) days after the receipt of such material shall be an unqualified acceptance of such material and a waiver by such party of all claims with respect thereto.

(b) Allied Chemical assumes all risk and liability for handling and use of any concentrates and UF_6 , and Customer assumes all risk and liability for handling and use of any UF_6 delivered hereunder.

(c) No claim against Customer as to said concentrates shall be greater than Customer's original cost thereof and no claim against Allied Chemical as to said UF_6 shall be greater

than the conversion charge, if any, Customer has paid hereunder with respect to such UF_6 , plus Customer's original cost of concentrates delivered for conversion thereof.

(d) No claim against either party hereto arising out of this Agreement shall include liability for special, incidental, indirect, punitive or consequential damages.

13. WARRANTY

CUSTOMER WARRANTS THAT THE CONCENTRATES DELIVERED HEREUNDER WILL MEET THE "MAXIMUM LIMIT CONCENTRATES" SPECIFICATIONS THEREFOR PROVIDED HEREIN, AND ALLIED CHEMICAL WARRANTS THAT THE UF_6 CONVERTED AND DELIVERED HEREUNDER WILL MEET THE SPECIFICATIONS THEREFOR PROVIDED HEREIN. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING WARRANTY OF MERCHANTABILITY IN OTHER RESPECTS THAN EXPRESSLY SET FORTH ABOVE.

14. WAIVER

Waiver by either party of any breach or failure to enforce any of the terms and conditions of this Agreement at any time shall not in any way affect, limit or waive such party's rights thereafter to enforce and compel strict compliance with every term and condition hereof.

15. ASSIGNMENT

This Agreement may not be assigned by either party without the mutual written agreement of both parties hereto. Except as so provided, any purported assignment hereof shall be null and void.

16. NOTICES

Any notices provided for herein shall be deemed to have been properly given to Customer and Allied Chemical, as the case may be, if the same shall have been mailed in a sealed wrapper, postage prepaid, addressed as follows:

To Allied Chemical:

Allied Chemical Corporation
Specialty Chemicals Division
P. O. Box 1087R
Morristown, New Jersey 07960

Attention:

To Customer:

Attention:

or to such other address as either party shall have directed in writing to the other prior to the mailing of such notice.

17. ENTIRE AGREEMENT AND GOVERNING LAW

This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof, and there are no understandings, representations or warranties of any kind, express or implied, not expressly set forth herein. This Agreement may not be modified or amended except by a writing duly executed by the parties hereto. This Agreement shall be governed by and enforced in accordance with the laws of the State of New York.

IN WITNESS WHEREOF, the parties hereto have
executed this Agreement, in duplicate, as of the day and year
first above written.

The to be
services
"Specialty Chemicals"
Limited Corporation
Washington, D.C.

ALLIED CHEMICAL CORPORATION
Specialty Chemicals Division
By _____

By _____

By _____

CUSTOMER

By _____

1. Unit	0.00
2. Unit	0.00
3. Process	0.00
4. Unit	0.00
5. Unit	0.00
6. Unit	0.00
7. Unit	0.00
8. Unit	0.00
9. Unit	0.00
10. Unit	0.00
11. Unit	0.00
12. Unit	0.00
13. Unit	0.00
14. Unit	0.00
15. Unit	0.00

16. Unit
17. Unit
18. Unit
19. Unit
20. Unit

EXHIBIT A

URANIUM CONCENTRATES UF₆ CONVERSION SURCHARGES

The following specifications and surcharges have been established for UF₆ conversion services. When uranium concentrates fail to meet the specifications set forth and designated as "Standard Concentrates", surcharges will be assessed for any deviations up to the "Maximum Limit Concentrates" specification according to the surcharge schedule, based on sampling, weighing, and assay of each lot. Surcharges will be computed to the nearest whole pound.

	"Standard Concentrates"	"Maximum Limit Concentrates"	Surcharge Schedule (\$/lb. U)
1. Uranium (U)	75%	65% min.	None
2. Vanadium (V ₂ O ₅)	0.10%	1.80% max.	See below
3. Phosphorus (PO ₄)	0.10%	0.70% max.	See below
4. Halides (Cl, Br, I)	0.05%	0.10% max.	None
5. Fluoride (F)	0.01%	0.10% max.	None
6. Molybdenum (Mo)	0.10%	0.30% max.	\$0.005
7. Sulfur (SO ₄)	3.00%	8.00% max.	None
8. Iron (Fe)	0.15%	1.00% max.	None
9. Arsenic (As)	0.05%	0.15% max.	None
10. Carbonate (CO ₃)	0.20%	0.75% max.	None
11. Calcium (Ca)	0.05%	0.75% max.	\$0.005
12. Sodium (Na)	0.50%	7.50% max.	See below
13. Boron (B)	0.0050%	0.10% max.	None
14. Potassium (K)	0.10%	3.00% max.	\$0.005
15. Water (H ₂ O)	2.00%	4.00% max.	\$0.005

Specifications 1 through 14 are to be determined on a dry weight concentrate basis. Specification 15 is to be determined on a natural basis.

Only uranium concentrates of natural origin (non-irradiated) containing 0.711% U-235 will be acceptable under this Agreement.

Vanadium (V_2O_5)

If vanadium content is greater than 0.10%, a surcharge of \$0.005 per pound U will be assessed for each additional 0.10% vanadium or portion thereof up to a maximum allowable limit of 1.80%.

Phosphorus (PO_4)

If phosphorus content is greater than 0.10%, a surcharge of \$0.004 will be assessed per pound of U for each additional 0.10% phosphorus or portion thereof up to a maximum allowable limit of 0.70%.

Sodium (Na)

If the sodium content exceeds 0.50%, a surcharge of \$0.02 per pound U will be assessed for each additional 1.00% sodium or portion thereof up to 3.5%. If the sodium content exceeds 3.5%, an additional surcharge of \$0.03 per pound U will be assessed for each 1.00% sodium or portion thereof from 3.5% up to maximum allowable limit of 7.5%. No blending of dry concentrates to reduce sodium levels will be allowed.

Any deviations which exceed the listed maximum allowable limits are subject to negotiation in the determination of surcharges which may be assessed, subject, however, to the provisions of Paragraph 1 of the Agreement.

Handwritten:
1.02
3
1.06
1.11
1.18 1/2 lb per lb U
Total 1.18

EXHIBIT B **URANIUM HEXAFLUORIDE SPECIFICATIONS**

The following specifications apply to uranium hexafluoride produced from natural (non-irradiated) uranium:

Item	Numerical Value
Maximum vapor pressure of filled container at 200° F in pounds per square inch, absolute	75
Minimum weight percent of UF_6 in material	99.5
Maximum mol percent of hydrocarbons, chlorocarbons, and partially substituted halohydrocarbons.	0.01
Maximum number of parts of elements indicated per million parts of total uranium:	
Antimony.	1
Bromine	5
Chlorine	100
Niobium	1
Phosphorus	50
Ruthenium	1
Silicon	100
Tantalum	1
Titanium	1
Total number of parts of elements forming nonvolatile fluorides (having a vapor pressure of one atmosphere or less at 300° C) per million parts of total uranium e.g. aluminum, barium, bismuth, cadmium, calcium, chromium, copper, iron, lead, lithium, magnesium, manganese, nickel, potassium, silver, sodium, strontium, thorium, tin, zinc, and zirconium	300
Maximum number of parts of elements or isotopes indicated per million parts of U-235.	
Chromium	1500
Molybdenum	200
Tungsten	200
Vanadium.	200
Uranium-233	500
Uranium-232	0.110
Maximum thermal neutron absorption of total impurity elements as equivalent parts of boron per million parts of total uranium	8
Maximum total of gamma activity due to fission products and uranium-237 as percent of gamma activity of aged natural uranium and as measured in a high pressure ionization chamber (Drawing D-AWM-8796 of Nuclear Division, Union Carbide Corp.)	20
Maximum beta activity due to fission products as percent of beta activity of aged natural uranium	10
Maximum alpha activity from all transuranic elements in disintegrations per minute per gram of total uranium.	1500

All specification analyses on UF_6 shall be performed on samples removed in the liquid state from each cylinder while its contents are liquid and homogeneous.

Reflects Federal Register Revision dated 11-29-67

EXHIBIT C

OUTLINE OF SAMPLING, WEIGHING, MOISTURE DETERMINATION AND ASSAY PROCEDURE FOR NATURAL URANIUM CONCENTRATES

A. Natural uranium concentrates shall be purchased by Customer and shall be shipped to the privately-owned sampling facility at Metropolis, Illinois.

B. The independent operator of the Metropolis, Illinois, sampling plant shall: (I) determine whether the concentrates meet the physical requirements of the facility for sampling, including screen size; (II) sample the concentrates by the falling-stream method; (III) tare weigh and record individual empty-drum weights; (IV) refill, gross weigh and record individual full drum weights; (V) determine moisture content of the concentrates; and (VI) prepare dried samples for assay purposes. Standard practices shall be followed by the independent operator of the sampling plant in performing such services. The moisture determination made by such independent operator shall govern and be binding on both parties. Either party may at its expense have representatives present during such sampling, weighing and moisture determination.

C. All drums of each lot of concentrates shall be emptied into the falling-stream sampling plant by the independent operator. The empty drums shall be cleaned free of dust and each empty drum shall be tare weighed and the weight recorded. The tare weight so determined shall be governing. The contents of the lot sampled by the falling-stream method, including the unused portion of the gross sample, shall be repackaged into the same drums as packaged by the concentrate vendor and then the drums shall be reweighed to determine the governing gross weight. The net weight of the material in the drums shall be determined by subtracting the governing tare weight from the governing gross weight as determined and recorded by the sampling plant operator. To this net weight of material in the drums shall be added the net weight of the analytical samples furnished to Allied Chemical. This total net weight shall be accepted by the parties hereto as governing.

D. The samples to be used for uranium assay and impurity analysis shall be prepared by standard practice from the dried sample on which moisture was determined.

E. Six samples shall be prepared and packaged under vacuum in Mason jars. Each Mason-jar sample shall contain approximately 150 grams of concentrates. Two such samples shall be sent to Customer or its designated laboratory (hereinafter "customer laboratory"), two shall be delivered to Allied Chemical at said Metropolis Works and two shall be retained by the independent operator of the sampling plant for possible umpire use. Each party shall advise the other of date of receipt of samples by telegraph, telephone or airmail (the method of advisement to be determined by mutual agreement) immediately upon receipt of samples.

F. The Customer laboratory and Allied Chemical's laboratory shall each independently assay such samples for uranium content. (Detailed procedure for such assaying is available upon request to Allied Chemical). Charges for such uranium assays shall be borne by the party performing such assay. When each party has finished the uranium assay, it shall send a certificate of such assay, with results expressed to the nearest 0.01% uranium, dry sample basis, by registered or certified mail to the other party on a date previously agreed upon by the parties. The agreed-upon mailing date shall be the same for the mailing by each party and shall be no later than fourteen calendar days after the date of receipt of the samples by the party that receives such samples last. Should the parties be unable to agree on date of mailing of such certificates because one of the parties would not have completed the assay within the fourteen-day period, then the other party which has completed its assay shall mail its certificate on said fourteenth day and that assay so mailed shall be the governing assay for payment and accountability purposes. Should neither of the parties be able to complete the assay within the fourteen-day period, then by mutual agreement a later date may be set, such date to be no later than twenty-one calendar days after receipt of samples by the party that receives such samples last. If both parties require additional time beyond twenty-one days, then additional seven-day periods may be allowed by mutual agreement. When one of the parties has completed the assay within the period agreed upon, but the other party is unable to complete its assay within the same period, then that assay which is completed shall be mailed on the last day of the period and shall be the governing assay without further time extensions. When both parties mail their certificates of assay on an agreed-upon date, the arithmetical average of the two assays, expressed to the nearest 0.01% uranium, dry sample basis, shall become the governing assay for payment and accountability purposes, unless the two assays disagree by 0.21% uranium or more, dry sample basis, or unless either party believes a bias exists regardless of the particular assay difference, and within seven calendar days after receipt of the certificate of assay of the other party, either party advises such other party (or its designee) by written or telegraphic notice that an umpire assay for uranium is desired. The arithmetical average of the two assays shall be calculated by adding the two assays and then dividing the resultant sum by two. This division shall be carried to the third place after the decimal and then shall be rounded off to the second place after the decimal as follows:

- (I) If the integer in the third place after the decimal is a zero, the integer in the second place after the decimal shall remain unchanged.
- (II) If the integer in the third place after the decimal is a five and the integer in the second place after the decimal is an even number, the five shall be dropped and the even number in the second place after the decimal shall remain unchanged.
- (III) If the integer in the third place after the decimal is a five and the integer in the second place after the decimal is an odd number the five shall be dropped and one shall be added to the odd number in the second place after the decimal to raise the second place to the nearest even number.

G. Such umpire analyses shall be performed by a third party mutually acceptable to both Allied Chemical and Customer. Umpire samples retained by the sampling plant operator for such assay shall be sent to the umpire for such purpose. If the results of the umpire's assay fall between those of the Customer laboratory and Allied Chemical laboratory, the umpire's assay shall be binding and become the governing assay. If the umpire's assay falls outside those assays of the Customer laboratory and Allied Chemical laboratory, the assay nearest the umpire's assay shall govern. The umpire's charges shall be paid by the party whose assay results are farthest from the umpire's result, except that if the umpire's result should be equidistant between the assays of the parties, then each party shall pay one-half of such charges.

H. Impurity analyses may be performed by either the Allied Chemical laboratory, the Customer laboratory, or both, on the uranium concentrate sample used for the uranium assay. Analyses may be performed for any or all of the impurities listed below:

Vanadium as V_2O_5
Phosphorus as PO_4
Halides as Cl, Br & I
Fluoride as F
Molybdenum as Mo
Sulfur as SO_4
Iron as Fe
Arsenic as As
Carbonate as CO_3
Calcium as Ca
Sodium as Na
Boron as B
Potassium as K

Certificates of analysis for any such impurity expressed to the nearest 0.01% of the chemical form listed above, (except for boron which shall be expressed to the nearest 0.001% boron) may be mailed by the parties and if so mailed shall be mailed simultaneously with their assays for uranium. If one party should fail to perform an analysis for any impurity or fail to mail a certificate of analysis for any impurity, then the impurity analysis of the party which did mail such certificate of analysis shall govern for purposes of surcharges or rejection. If both parties fail to perform an analysis for any impurity or fail to mail certificates of analysis for any impurity, then that impurity shall be deemed to be equal to the amount specified for such impurity in the column entitled "Standard Concentrates" in Exhibit "A". In the event of a difference in the analyses for one or more of the impurities for which both parties have so mailed their certificates of analyses, Allied Chemical's analysis shall govern for purposes of surcharge or rejection, unless within seven calendar days after receipt of the certificate of analysis either party should advise such other party (or its designee) by written or telegraphic notice that an umpire analysis for one or more of the impurities is desired. Such umpire analyses as may be required shall be performed in the manner described in Paragraph G above. No umpire analysis for any impurity shall be required unless the party requesting such umpire analysis has mailed its certificate of analysis for the impurity at the proper time and in the manner described above. Nothing herein shall prevent the parties from performing reanalysis themselves or otherwise resolving any differences in analyses between the parties without requiring the use of an umpire, provided that both parties so mutually agree.

ALLIED CHEMICAL CORPORATION

P.O. Box 1087R, Morristown, New Jersey 07960

(201) 455-3321

President
Specialty Chemicals Division

November 6, 1973

Mr. G. F. Quinn
Assistant General Manager
for Production and Management
of Nuclear Materials
United States Atomic Energy Commission
Washington, D. C. 20545

6263

Dear George:

Pursuant to your letter of October twenty-fifth and our telephone conversation of yesterday, we wish to confirm that we would like to perform UF₆ conversion services for the AEC in fiscal 1974 and 1975. We would propose to perform these services as projected in Case 3, namely, 4233 STU in fiscal 1974 and 9500 STU in fiscal 1975, at the charges indicated in such case.

As discussed on the telephone yesterday, we want to get started as soon as possible to preclude the shutdown of our plant at Metropolis, Illinois. Perhaps we could move forward with a letter agreement before a contract is finalized.

As you know, we have an inventory of approximately 6000 tons so we can provide immediate shipments once we have received concentrates to cover the shipment.

We certainly appreciate your cooperation, George, and we are looking forward to working with you in providing UF₆ conversion services.

Sincerely,


J. W. Kelley

PL 1
NOV 9 1973

MEMO ROUTE SLIP		See me about this. Note and return.	For concurrence. For signature.	For action. For information.
Form AEC-93 (Rev. May 14, 1947) AECM 0240				
TO (Name and unit)	INITIALS	REMARKS		
C. A. Keller, OR	<i>call</i>	6321		
Attn: B. W. Robinson	DATE	<i>11/13/73</i>		
TO (Name and unit)	INITIALS	REMARKS		
Jim Kehane	DATE			
TO (Name and unit)	INITIALS	REMARKS		
	DATE	6335		
FROM (Name and unit)	REMARKS			
Frank E. McGinley Chief, E&S Branch	Per our discussion today attached are notes on recent telephone conversations with Riley -- just to keep you informed.			
PHONE NO.	DATE	<i>Frank</i>		
	11/13/73			

USE OTHER SIDE FOR ADDITIONAL REMARKS

GPO : 1948 O-254-816

6321

TELEPHONE CALL FROM A. D. RILEY, MANAGER OF PRODUCTION, ALLIED CHEMICAL COMPANY - METROPOLIS, ILLINOIS - TO FRANK McGINLEY, GJO, NOV. 6, 1973

Riley said Allied had agreed with AEC to take 13,000 tons U for conversion at Metropolis. He wanted the lot numbers of 3 to 4 lots with a high incidence of redrumming, (i.e., where several drums had been redrummed while in stockpile at GJO) so these lots could be requested by Allied in initial shipments for resampling by Allied at Metropolis. He said he understood AEC was to provide concentrate containing less than 2% sodium but he didn't know if the 13,000 tons was all concentrate or if some UO₃ would be supplied. Riley also said he had a list of samples Allied would request LPI to ship to Metropolis for Allied to analyze before lots are shipped. Allied will determine amenability (reactivity, size, etc.).

I promised to telephone lot numbers on Nov. 7.

On Nov. 7, I telephoned these Kerr McGee Lot Nos. supplied by LPI as lots readily accessible for shipment and less than 2% Na.

U ₃ O ₈	Lot No.	Na	Total Drums	Number Redrummed
51.0	1302 *	.72	61	7
51.0	1258	.72	58	3
51.0	1259	.71	60	8
51.0	1315	.72	61	4
51.0	1356	.72	58	4
51.0	1270 *	.72	56	7
51.0	1272 *	.72	55	5

Riley said it did not matter if material was all from one producer or not.

Regarding the list of lot samples for Allied's analysis, Riley said he would have to await a contract and he presumed we would also. Riley said Allied would not analyze for Na those lots ~~those lots~~ for which we do not have Na analyses. Riley said we would just have to estimate the Na content. As long as it was within a few tenths of 2% Allied would have no problems -- Riley said Allied does not want any big discrepancies like our sending a lot estimated to contain 2% that actually contains 5% Na.

Riley said he would call when he had more definitive contract information.

- * Additional Lot Nos. given Riley on 11/9. Riley said Rock was going to call Quinn (AEC) about Allied's getting samples from GJO soon. Riley understood AEC could not move until reply received from Kerr McGee on same offer made Allied

F. McG.
Frank E. McGinley, Chief
Engineering & Safety Branch



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

SEP 5 1973

0864

R. J. Hart, Manager
Oak Ridge Operations Office

DECREMENTAL COSTS OF IN-HOUSE PRODUCTION OF UF_6

On August 17, 1973 Commissioner Doub and the staff met with Messrs. Kelly and Rock of Allied Chemical to discuss their proposal to preconvert UF_6 for Tokyo Power and Electric Company (TEPCO). In this meeting Commissioner Doub told Allied Chemical that the AEC, for a variety of reasons, could not participate in the proposal they expected to submit to TEPCO.

Messrs. Kelly and Rock understood the AEC position but, still seeking ways to obtain additional UF_6 conversion business in 1974 and 1975, noted that through January 1, 1975 they had about 18,000 tons U excess conversion capacity. They asked the AEC to review its plans through January 1, 1975 to see how much AEC in-house conversion could be diverted to the domestic private converters and estimate the amount of money that could be released from the budget for such conversion, similar to the estimates we provided them in July 1972. The request is consistent with past AEC policy statements and we agreed to provide the data.

Therefore, you are requested to develop a revised operating schedule for the period October 1, 1973 through January 1, 1975 that would divert conversion of 18,000 STU of concentrates to UF_6 from AEC to private domestic converters. You should assume that AEC will budget for the following quantities in FY 1974-75.

	STU	
	FY 1974	FY 1975
Conc. to UO_3	10,000	15,000
UO_3 to UF_6	15,500	14,700

You should further assume that AEC will operate the UF_6 to UF_4 plant at maximum capacity in both years and, at a minimum, the Paducah UO_3 to UF_6 plant will operate at a level adequate to consume the HF recovered from the UF_6 to UF_4 operation. The Fernald refinery should be assumed to be operated at a level necessary for full utilization of the people assigned to the fire brigade. Previously, this level was estimated to be about 2,300 STU per year.