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NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

Proposed Briefing By Doe & Euratom
Representatives on Export Matters

Place - Washington, D. C.

Date - Thursday, July 5, 1979

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

PUBLIC MEETING

* * * *

PROPOSED BRIEFING BY DOE & EURATOM
REPRESENTATIVES ON EXPORT MATTERS

* * * *

Commissioner's Conference Room
1717 H Street N.W.
Washington, D.C.

Thursday, July 5, 1979

The Commission met, pursuant to notice, at
3:10 p.m.

Before:

- DR. JOSEPH M. HENDRICE, Chairman
- VICTOR GILINSKY, Commissioner
- RICHARD T. KENNEDY, Commissioner
- JOHN AHEARNE, Commissioner.

Also Present:

Messrs. Voigt, Boudreau, Kuhn, Smith, and Shea.

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P R O C E E D I N G S

1
2 CHAIRMAN HENDRIE: If we could come to order,
3 please, the Commission will then be able to move to the next
4 subject on this afternoon's agenda.

5 We have a briefing here with the Department
6 of Energy and, let's see, Euratom, as well.

7 MR. VOIGHT: No, just Department of Energy.

8 CHAIRMAN HENDRIE: On the order of export matters.

9 Bill Voigt, who is in charge of uranium, is, I
10 guess, since he's sitting here in the middle of the table,
11 seems to be the principal party on the other side.

12 What are you doing on the uranium, Bill?

13 MR. VOIGHT: We're trying to export it.

14 [Laughter.]

15 CHAIRMAN HENDRIE: I thought the game was to try
16 find more. Sending it away seems somehow to be going the
17 other direction.

18 MR. VOIGHT: Well, part and parcel of
19 my responsibilities are the establishment of the availability
20 of domestic resources. But the subject that I really want
21 to discuss today really relates to enrichment and our
22 perception of trying to be an assured source of supply,
23 in keeping with the administration's goal that indeed the U.S.
24 will be a reliable supplier of enrichment services to the
25 free world for those who accept the nonproliferation objectives.

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May I have the first chart, please.

[Slide.]

COMMISSIONER AHEARNE: Why don't you introduce your --

MR. VOIGT: Oh, I'm sorry, John, yes.

To my left is Ronnie Smith, who's director of our Business & Marketing operations, in URE.

This is Art Boudreau, who heads up my Contracting & Marketing activities.

And Don Kuhn, who is one of my contract specialists.

The first chart really indicates somewhat of a history of our contractual arrangements for enriched uranium, dating back to the early 1960s when we used to lease material to the utilities.

This really ceased in August of 1964 when the Private Ownership Act came into being.

We had, in 1969, what we call requirements type contracts, and these requirements contracts extended through December of '72, when we ceased letting any more requirements contracts in favor of what we call a long-term, fixed commitment contract.

The reason for this was the requirements contract really put the onus on the government in terms of responsibilities as contrasted to the utilities.

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1 The LTFC, the long-term, fixed commitment contract,
2 was a 10-year contract with utilities which, in effect,
3 put the onus back on the utilities, rather than on the
4 government.

5 However, in the summer of 1978, we offered what
6 we now term our adjustable fixed commitment contract which
7 is really a shared contract -- when I say sharing, sharing
8 the risk between the utility and the government, which is
9 basically a five-year -- a rolling five-year contract.

10 COMMISSIONER GILINSKY: I wonder, before you get
11 to that, if you could explain why the books were closed in --

12 VOIGHT: In 1974?

13 COMMISSIONER GILINSKY: -- 1974?

14 MR. VOIGHT: In 1974 -- well, let me just step
15 back one additional step.

16 The enrichment services criteria, which are criteria
17 that must be approved by Congress, stipulated that we had
18 the authority to contract with the utilities up to -- for
19 the three existing gaseous diffusion plants, for the fully
20 powered -- and fully improved through the cascade improvement
21 and cascade upgrading program. That's a \$1.5 billion
22 program which is about 70 percent complete today.

23 In the summer of '74, we had on the books at that
24 particular point in time 323,000 megawatts under contract.

25 This reached the limit of those three existing plants, again

1 when improved and when fully powered. We closed the order
2 book.

3 It was not until January of '78 when we went
4 back to Congress and sought amendments to that legislation,
5 to that criteria, which would permit us not only to use
6 the three existing diffusion plants, but the gas centrifuge
7 plant as well.

8 COMMISSIONER AHEARNE: The authorization --

9 MR. VOIGT: The authorization --

10 COMMISSIONER GILINSKY: Let me just ask you,
11 could the purchasers of these -- of the fuel sell it to other
12 utilities? In other words, could they trade in the fuel
13 themselves?

14 MR. VOIGT: Yes. They can assign --

15 COMMISSIONER GILINSKY: Could they at that time?

16 MR. VOIGT: They can assign, under our existing
17 long-term, fixed commitment contract, with our approval, but
18 they have to seek our approval.

19 In other words, if, say, Country Y wanted to trade
20 to Country Z, if there was agreement for cooperation with
21 Country Z, and it fell within the megawatt range of our
22 agreement for cooperation, if we approved of it, yes, indeed,
23 it could.

24 But it was not until --

25 CHAIRMAN HENDRIE: Bill, the megawatts you're

1 talking are electrical capacity --

2 MR. VOIGT: Yes, electrical, right.

3 CHAIRMAN HENDRIE: -- megawatts, gigawatts?

4 MR. VOIGT: Yes, right.

5 CHAIRMAN HENDRIE: 323.

6 MR. VOIGT: 323 gigawatts.

7 COMMISSIONER GILINSKY: Let me ask one more question

8 on this point.

9 Wasn't it clear that, given the projections for
10 nuclear power growth, that the fuel really couldn't be
11 taken at the rate it was contracted for?

12 MR. VOIGT: Yes. That is correct.

13 In fact, in 1975, we had what we call an open
14 season, an open season whereby each utility could either
15 delay or postpone the requirements for fuel.

16 COMMISSIONER AHEARNE: Or cancel?

17 MR. VOIGT: Or cancel. But that was free of
18 charge.

19 COMMISSIONER AHEARNE: See, there's a penalty,
20 otherwise.

21 MR. VOIGT: There is a termination charge --
22 when a utility contracts with us right now, for example, he
23 gives us what they call an advance payment. This is normally
24 around \$4 million for a 1000 megawatt reactor.

25 If he terminates the contract prior to getting the

1 construction permit, he forfeits that advance payment. If
2 he has a construction permit, then it becomes increasingly
3 greater than \$4 million.

4 COMMISSIONER GILINSKY: I guess what I'm getting to
5 is that given in a real sense, the capacity is still there,
6 although it had been spoken for --

7 MR. VOIGT: Contracted for, but not necessarily
8 built. See, we were contracted, even though we were still
9 undertaking the cascade improvements and cascade upgrading
10 program, and the plant has not reached full power yet.

11 COMMISSIONER GILINSKY: Well, given the terrific
12 impact that closing the books had, it could have been
13 expected. Why wasn't this handled in some other way?

14 MR. VOIGT: Between '74 and '78, under the
15 prior administrations, there was a push to have the
16 enrichment enterprise vest, go into private hands.

17 This was under the auspices of the Nuclear Fuel
18 Assurance Act, which was submitted to Congress and defeated
19 by Congress in 1978 -- '77.

20 CHAIRMAN HENDRIE: It cycled for a couple of years,
21 it seems to me, didn't it?

22 MR. VOIGT: '76.

23 I'm sorry?

24 CHAIRMAN HENDRIE: That act, or versions of it,
25 cycled for a couple of years there, I think.

1 MR. VOIGT: Really, I think only one year.

2 COMMISSIONER AHEARNE: I thought they were strong
3 supporters?

4 CHAIRMAN HENDRIE: Okay. Sorry. Onward.

5 MR. VOIGT: Right now we're in the process of
6 converting all the existing LTFCs to the new adjustable fixed
7 commitment contract that I mentioned earlier. In fact, people
8 have to notify us by September of this year as to their
9 intent for conversion from the LTFC to the AFC.

10 COMMISSIONER AHEARNE: How is that coming?

11 MR. VOIGT: It's coming along very well. Very, very
12 well.

13 About 98 percent of the current holders of LTFCs
14 have indicated they want to convert.

15 May I have the next chart, please.

16 [Slide.]

17 Just to give you a little perspective in terms
18 of the contracts, the adjustable fixed commitment contract
19 does retain our fixed commitment features. It also takes
20 advantage of the possibility in terms of modular centrifuge
21 technology.

22 Now what basically that means is that in a gas
23 centrifuge enrichment plant, you can build smaller increments,
24 smaller modules; hence, in a five-year construction phase,
25 so hence that is why we can incorporate a five-year provision

1 within a contract itself.

2 As I mentioned earlier, the existing LTFC has
3 very rigid provisions, little customer flexibility, and they
4 have no provisions at all for adjusting or slipping requirements.

5 Now the basic thrust of entering into our new
6 contract was to re-establish the United States as a reliable
7 supplier, under reasonable terms and conditions.

8 And as I mentioned, the centrifuge technology
9 allows shorter lead time for contract execution.

10 Next chart, please.

11 [Slide.]

12 Now I mentioned earlier that we had originally
13 323 gigawatts on the contract. The number of contracts we
14 have now -- a number of those 323 were conditional on the
15 passing of GESMO.

16 In other words, if GESMO was not passed, they had
17 the option of getting out of that conditional contract.
18 A number of them are terminated and right now on the books,
19 including terminations, we have 303 gigawatts.

20 This represents about 303 contracts, representing
21 306 gigawatts.

22 As it can be seen, about one-third of our contracts
23 are foreign, two-thirds are domestic. And about one-third
24 of the totality of the contracts are requirements contracts.
25 The other two-thirds are existing fixed commitment contracts.

1 Next one, please.

2 [Slide.]

3 Now talking about some of the roadblocks that we
4 have in supplying enrichment services, of course the
5 Nuclear Arms Proliferation Act of 1978 will require
6 subsequent arrangements be published in the Federal Register.

7 We are in the process of renegotiating some of
8 the agreements for cooperation, and we also have the right
9 for approval to re-transfer materials, no reprocessing.

10 Under the export license, a firm contract lends
11 certainty in the ability to export. Now, as I will show in a
12 few minutes, there have been a number of utilities that have
13 terminated DOE enrichment contracts and they've stipulated
14 that the major concern -- one of the major concerns is the
15 ability to get the material out of the country; that they do
16 not perceive DOE as a reliable supplier of material.

17 However, that in itself is not the only reason
18 we are seeing foreign competition and nationalism. Of
19 course, URENCO in Germany, Eurodif, in terms of supplying
20 both Italy and Spain, and Technab Export, Russia, is right
21 now supplying about 3 million separate work units to Europe.

22 For interest, both URENCO and Eurodif have
23 established offices in the United States and, in fact, one of
24 my friends in the audience is from URENCO today. He just
25 wanted to hear what the latest scoop was.

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1 Eurodif -- in fact, Russia is also making some
2 moves to see if indeed they might not be a possibility of
3 supplying some of our domestic reactors.

4 COMMISSIONER AHEARNE: Have you established offices
5 anywhere outside the United States?

6 MR. VOIGT: No. But we have had marketing trips,
7 and I'll touch on that a little bit.

8 CHAIRMAN HENDRIE: There's a -- if it's done
9 right, there's a solution to the waste problem. You buy
10 your fuel from the Russians and when it's burned up, you send
11 it back to them.

12 [Laughter.]

13 COMMISSIONER KENNEDY: For reprocessing and reten-
14 tion there.

15 MR. BOUDREAU: If I may add, Mr. Chairman,
16 we possibly could buy the SWUs cheaper from the Soviet Union
17 as well, about 5 percent.

18 MR. VOIGT: It's been a standard practice, whenever
19 we publish an update in our SWU chart, it just happens that
20 Russia updates their charge 5 percent less than what we're
21 charging. You can just track it as a function of time.

22 COMMISSIONER AHEARNE: We'll have to ask the GAO
23 to study that.

24 [Laughter.]

25 MR. VOIGT: Of course, there have been actions by

1 state regulatory commissions, California de facto moratorium,
2 Wisconsin, and New York, appeared questionable. Of course,
3 there are a lot of intervenor and ballot initiatives, like
4 in Austria, no nuclear plants, Switzerland, a narrow victory
5 for nuclear power, Montana and Sweden -- of course, we know --

6 COMMISSIONER GILINSKY: You say these are roadblocks
7 to DOE supplying enrichment services?

8 MR. VOIGT: This is of concern within a framework
9 that to be in the short source of supply -- I mean these are --
10 these are stumbling blocks, is what I'm trying to say.

11 COMMISSIONER AHEARNE: What you really mean is
12 that they're potential reductions in the sales plan.

13 MR. VOIGT: Yes.

14 COMMISSIONER GILINSKY: Sales of his enterprise.

15 MR. VOIGT: Maybe it's the wrong choice of words.

16 COMMISSIONER KENNEDY: They're -- the most reliable
17 supplier is the one who meets the full requirements
18 of a zero market.

19 COMMISSIONER GILINSKY: I would think --

20 MR. VOIGT: Some view that. . . Of course,
21 as you are well aware, the public perception of the China
22 Syndrome -- I won't even talk about TMI. I'm talking about
23 foreign policy issues, of course, India --

24 COMMISSIONER GILINSKY: How did Montana get in
25 between --

1 MR. VOIGT: Excuse me?

2 COMMISSIONER GILINSKY: -- Switzerland and Sweden?

3 [Laughter.]

4 CHAIRMAN HENDRIE: From Bill's standpoint, it's a
5 friendly Western power.

6 [Laughter.]

7 MR. VOIGT: Sometimes I can believe it.

8 Korea -- and again our revised ceiling and
9 agreement for cooperation, of course, South Africa, there
10 are some proliferation of foreign policy concerns.

11 Next chart, please.

12 [Slide.]

13 Now let's talk about the contracts that have
14 been terminated.

15 As you can see, on foreign, there have been
16 six German reactors and one Spanish reactor that have
17 terminated contracts since June of '78. This represents
18 in value something on the order of \$1 billion.

19 COMMISSIONER GILINSKY: Have they shifted to
20 URENCO?

21 MR. VOIGT: The Germans have shifted to URENCO.

22 COMMISSIONER GILINSKY: Weren't they basically
23 doing this to keep URENCO orders up?

24 MR. VOIGT: Well, I think it's a function of two
25 things. I must admit that there was certain pressure by

1 FIG to have the German utilities sign up with URENCO. I
2 accept that.

3 But also, along with that, though, is their
4 concern, and I've talked to them individually, their concern
5 over the capability of getting the material out of the
6 United States.

7 In fact, one utility indicated that he was
8 legally bound -- in fact -- I don't know if we want to
9 mention the name, -- but irrespective, that he was legally
10 bound, that by law if he could not produce that he was
11 liable for suit; imprisonment, as well.

12 Now --

13 COMMISSIONER KENNEDY: Which is even worse than
14 a suit.

15 COMMISSIONER AHEARNE: What is the relative
16 charge that URENCO and Eurodif ask in respect to what you're
17 asking for?

18 MR. VOIGT: In terms of SWU price?

19 COMMISSIONER AHEARNE: Yes.

20 MR. VOIGT: It now appears that we have a cost
21 advantage of somewhere between 30 -- \$20 and 30 a SWU.

22 COMMISSIONER AHEARNE: \$20 and \$30 a SWU?

23 MR. VOIGT: Yes.

24 CHAIRMAN HENDRIE: And a SWU is worth --

25 MR. VOIGT: Right now?

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1 CHAIRMAN HENDRIE: -- couple of hundred?

2 MR. VOIGT: No, the current fixed commitment
3 contract price is \$88.65 a SWU.

4 COMMISSIONER AHEARNE: 88 --

5 MR. VOIGT: -- dollars and 65 cents.

6 CHAIRMAN HENDRIE: So it's 25 percent advantage?

7 MR. VOIGT: Something on that order.

8 We're also looking at some possible additional
9 terminations and/or assignments of about six foreign
10 reactors and about 15 U.S., both of which in value total
11 something of the order of \$2.4 million.

12 COMMISSIONER GILINSKY: Let me ask you about
13 the Spanish orders. Have they been shifted --

14 MR. VOIGT: Yes. They shifted to Eurodif.

15 COMMISSIONER GILINSKY: Are they partners in
16 Eurodif?

17 MR. VOIGT: They are a partner in Eurodif.
18 The major partner. The Iran and who else -- well, France, itself.

19 We are experiencing some problem at this
20 particular point in time because Iran's nuclear program is
21 kind of groggy, so to speak.

22 Next chart, please.

23 [Slide.]

24 I see as the principal issue of -- I'm talking
25 about the U.S. government now, not DOE, not NRC, but

1 basically the -- what I would like to see is a five-year
2 export license which would be compatible with a five-year
3 ruling of adjustable fixed commitment contract.

4 We have been working with the NRC Staff attempting
5 to get something analogous to what NRC recently gave to
6 Mexico for the Laguna Verde. That if indeed that this would,
7 in my view, remove a lot of the anxiety from the foreigners'
8 minds if indeed they could see some form of a commitment on
9 the part of the government as a whole that for a finite
10 period of time they could be assured that they would be
11 getting some fuel.

12 COMMISSIONER GILINSKY: In your reference to
13 Mexico, is because in that case there were a number of
14 reloads. Is that the point?

15 I don't know what prevents applicants
16 from coming in, you know, and asking for a number of reloads
17 in one license. It has happened in a few cases, but as I
18 understand it, it's not frequent.

19 MR. VOIGT: Jim, how frequent is it?

20 MR. SHEA: There is one case right here, a case
21 where Westin house has asked for multiple reloads for Korea.
22 So I think we may see more of this.

23 I know the executive branch has been looking at a
24 policy on reloads, trying to work this out; but at this
25 point, it's being --

1 COMMISSIONER GILINSKY: Applications from Europe
2 are generally not multiple reload applications.

3 MR. SHEA: That's right.

4 COMMISSIONER GILINSKY: And those, in fact, are
5 the ones that have the smoothest sailing. In fact, I don't
6 think we ever even see them any more.

7 COMMISSIONER AHEARNE: Have we turned down a
8 German fuel license?

9 MR. SHEA: Multiple reload capacity?

10 COMMISSIONER AHEARNE: Yes.

11 MR. VOIGT: There was at one time -- and this is
12 right after, I think, passage of the Nonproliferation Act
13 where there was a boggle for three to four months, on shipment
14 of some fuel to the U.N. supply agency.

15 COMMISSIONER AHEARNE: Yes, because that was
16 because we hadn't taken the step called for in the end,
17 and agreed to enter the negotiations for --

18 MR. SHEA: That's right. So it was required by
19 the act that exports be terminated across the board
20 and then several months later that agreement was --

21 COMMISSIONER GILINSKY: Well, exempt exports,
22 exports in which certain restrictions had been implied.

23 COMMISSIONER AHEARNE: It's a certain exemption
24 for which certain exemptions have not been permitted.

25 That was because of explicit provision in the

1 act.

2 MR. VOIGT: I see.

3 Well, I just look at these.

4 But like I say, we -- our people have been meeting
5 with the --

6 COMMISSIONER KENNEDY: Some interpretations of it.

7 MR. VOIGT: We have been working with Jim Shea
8 within the framework of trying to see if it is feasible to
9 develop a rolling five-year export license and in my view
10 this is what we need from an image standpoint, at least,
11 and to establish the U.S. as a reliable supplier of
12 enrichment services.

13 Really, that's the message I had today.

14 I might just add a takeoff on one of John's
15 comments, we have intensified our marketing effort. I've
16 sent a team to the Far East, Taiwan, South Korea, Japan,
17 one in Europe. We just finished a team to -- went down to
18 Mexico, and we're looking now to sending one to Turkey and
19 Greece in the latter part of this year, again just to try
20 to reacquaint them with what we're doing, and that we're
21 back out in the marketplace trying to compete.

22 As a matter of fact, I think you were attending
23 one we had in --

24 COMMISSIONER GILINSKY: Yes, we crossed paths.

25 MR. VOIGT: -- in London.

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1 COMMISSIONER AHEARNE: Are you in the market, Vic?

2 [Laughter.]

3 CHAIRMAN HENDRIE: Don't come here for a license.

4 [Laughter.]

5 In looking around for new commitments, you're
6 looking not just at the difference between the currently
7 contracted for 306 gigawatts of capacity, that is the
8 difference between that and the 323 that presumably will be
9 there when the cascade upgrade is completed, but you're also
10 looking into the centrifuge capacity.

11 MR. VOIGT: We have the capability for signing
12 contracts because that plant has been authorized by Congress.
13 By rights, two new features -- or at least one significant
14 feature of the new contract that we are offering, we are
15 putting a lid on the tails assay of .25.

16 In other words, that we will not strip -- in
17 other words, we will not require a fee for anything more
18 than higher than .25 tails assay. If we do, the customer
19 has the right to terminate free of charge.

20 We also put a lid on the ceiling as well, and
21 the price, so that -- now with the three existing plants
22 fully improved and upgraded, plus GCEP -- Gas Centrifuge
23 Enrichment Plant -- will give us the self-sustaining
24 capability for 325 gigawatts at a .25 tails assay.

25 So by rights, from where we are today, we have

1 the capability for signing up anywhere between 25 to 40
2 more gigawatts, without going back to Congress for additional
3 enrichment authorization.

4 COMMISSIONER AHEARNE: That's at 8.8?

5 MR. VOIGT: 8.8.

6 COMMISSIONER AHEARNE: Have you thought about
7 your rolling five-year commitment -- and maybe I ought to ask
8 Jim this -- what kind of an interaction did you envision
9 with respect to meeting any criteria in that MPA?

10 MR. SHEA: Well, in general, criteria, of course,
11 have to be met and the only major focus that I have placed
12 on this was to be able to look ahead for some reasonably
13 short interval of time, and be fairly confident the criteria
14 would continue to be met, such as three to five years,
15 perhaps, in license exports and multiple reloads, for that
16 sort of period. But the criteria would, of course, have to
17 be continued to be met.

18 COMMISSIONER AHEARNE: Actually a long period,
19 you'd want to sign the contract.

20 MR. SMITH: The figure of the contract is only --

21 COMMISSIONER AHEARNE: Yes, I know, but when you
22 would first be signing the --

23 CHAIRMAN HENDRIE: It's a long time before we'd
24 see a license application, isn't that the problem, John?

25 COMMISSIONER AHEARNE: Yes, but my question is,

1 when you first make the contact with them and would want to be
2 able to give them a firm contract date they can get the stuff,
3 did you have in mind being able to have it as a five-year
4 block once the material starts being delivered, or would you
5 want to be trying to make that commitment X years in advance
6 when you first make the contract with them?

7 MR. VOIGT: I think it would be desirable, from
8 the outset, when you sign the contract, with the understanding
9 that indeed they would have a rolling five years from once
10 the material started.

11 COMMISSIONER AHEARNE: Right. So that -- but
12 that --

13 MR. SMITH: But they wouldn't apply for the license
14 until some time later.

15 COMMISSIONER AHEARNE: Yes, I know. What I'm
16 trying to think of is that -- so you're really talking about
17 possibly say if you went out to a contract and tried to line
18 up a contract today, the delivery might be to start somewhere
19 around '85, so the five-year period runs to '90, to start
20 with, and that's what I was thinking. And that's --

21 MR. SHEA: That's a lot more, yes. We've
22 indicated, I think, in our discussions that we couldn't
23 promise export licenses well ahead, which I think was being
24 hoped for.

25 COMMISSIONER AHEARNE: Have you had any discussions

1 with the State Department or with the Congress on this?

2 MR. VOIGT: Yes, with State and with ACTA, not so
3 much with Congress, although there's been a few discussions.

4 CHAIRMAN HENDRIE: Isn't the time even more than
5 five or six years, that is, don't people that get that
6 commitment in hand when they get a project start it?

7 MR. VOIGT: Not necessarily.

8 CHAIRMAN HENDRIE: What is your sort of -- sort of
9 a reasonable mean time interval between contract and first
10 fuel movement?

11 MR. VOIGT: Six to 10.

12 CHAIRMAN HENDRIE: So you're talking about periods
13 which stretch out then from 11 to 15 years, but you're a
14 long way out.

15 COMMISSIONER AHEARNE: Apply early.

16 [Laughter.]

17 MR. VOIGT: Well, you see, I think we're pretty
18 much in our dilemma within a framework that we're fairly
19 sure that we have a very good SWU price in comparison to
20 our competitors, the terms and conditions of our new AFC
21 contract are competitive; we fully believe that our
22 technology is superior -- well, people have debated me on
23 that point. However, the next question is how can we really
24 market this service, and with some assurance that indeed
25 that Mr. Country X will get his material when he needs it.

1 That's the problem we have.

2 I thank you very much for your time.

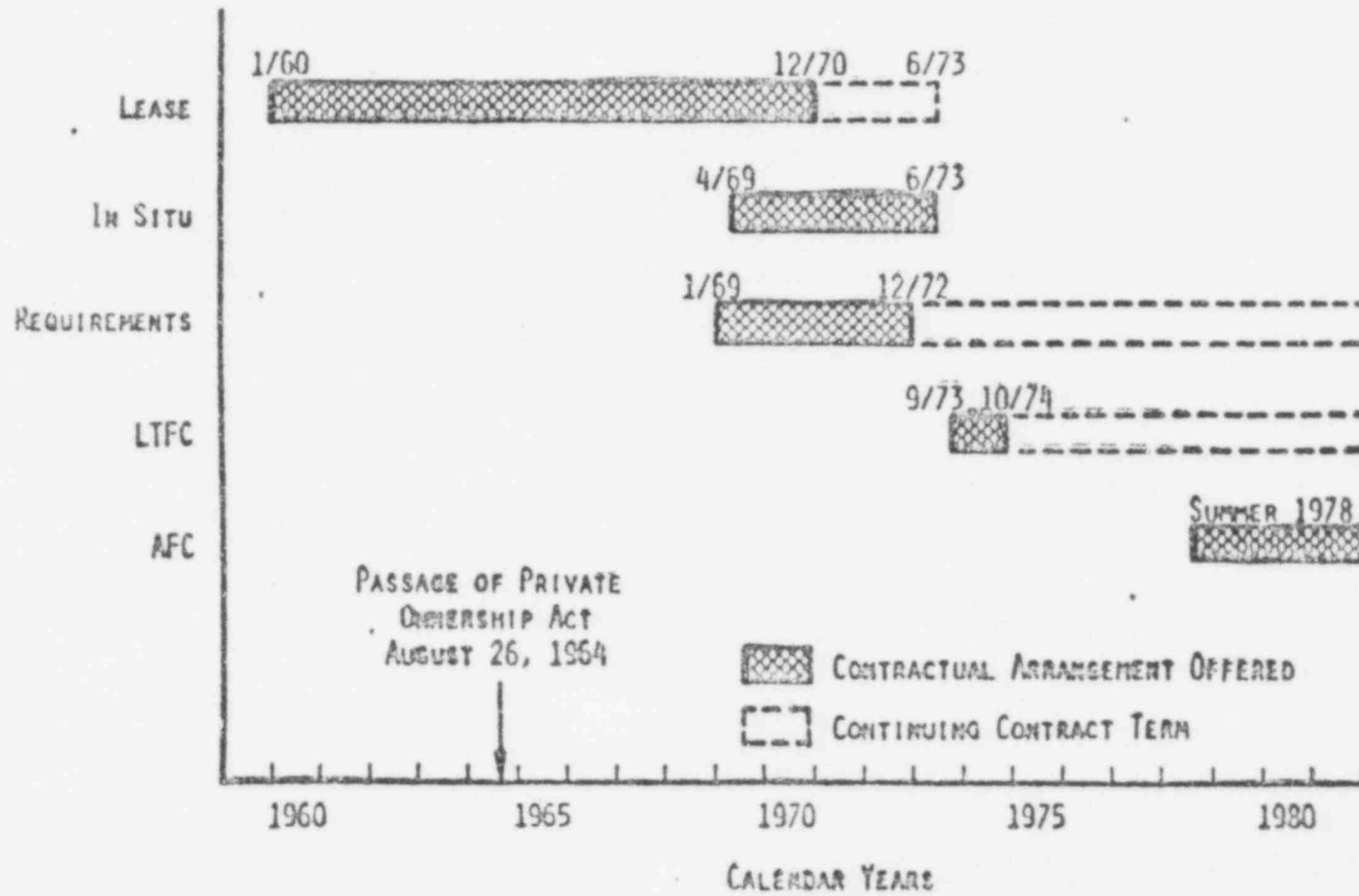
3 CHAIRMAN HENDRIE: Other questions?

4 Thank you. Thank you all.

5 [Whereupon, at 3:40 p.m., the meeting was
6 adjourned.]

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U. S. GOVERNMENT CONTRACTUAL ARRANGEMENTS
FOR ENRICHED URANIUM



POOR ORIGINAL

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NEW ENRICHMENT CONTRACT

ADJUSTABLE FIXED-COMMITMENT CONTRACT

- RETAINS FIXED-COMMITMENT FEATURES OF PRESENT TFC CONTRACT
- TAKES ADVANTAGE OF FLEXIBILITY INHERENT IN MODULAR CENTRIFUGE TECHNOLOGY

EXISTING LONG-TERM FIXED-COMMITMENT CONTRACT

- RIGID PROVISIONS - LITTLE CUSTOMER FLEXIBILITY
 - NO PROVISIONS FOR ADJUSTING OR SLIPPING REQUIREMENTS

NEW CONTRACT-WHY OFFERED

- ESTABLISH U.S. AS RELIABLE SUPPLIER WITH REASONABLE TERMS/CONDITIONS
- CENTRIFUGE TECHNOLOGY
 - ALLOWS SHORTER LEAD TIME FOR CONTRACT EXECUTION AND FIRM-UP

POOR ORIGINAL

457 107

STATUS OF SIGNED TOLL ENRICHING CONTRACTS

JUNE 1979

	<u>No. OF CONTRACTS</u>	<u>No. OF REACTORS</u>	<u>MWE</u>
REQUIREMENTS			
DOMESTIC	44	87	74,767
FOREIGN	<u>38</u>	<u>46</u>	<u>24,471</u>
SUBTOTAL	82	133	99,238
FIXED COMMITMENT			
DOMESTIC	130	121	126,023
FOREIGN	<u>91</u>	<u>91</u>	<u>81,333</u>
SUBTOTAL	221	212	207,356
TOTAL	303	345	306,594

CONTRACTS TERMINATED

SINCE JUNE 1, 1978

<u>U.S.</u>		<u>CONTRACT TYPE</u>	<u>MWE</u>	<u>NOTIFICATION DATE</u>	<u>TERMINATION DATE</u>	<u>VALUE (\$ MILLIONS)</u>
ALLEN'S CREEK-1	HOUSTON LIGHTING & POWER	LTFC	1150	JUNE 1979	JUNE 1979	141
<u>FOREIGN</u>						
BASF	GERMANY	LTFC	770	JUNE 1978	JUNE 1978	99
HAMM	GERMANY	LTFC	1100	DEC 1978	DEC 1978	173
VAHNM	GERMANY	LTFC	1211	JAN 1979	JAN 1979	147
PHILIPPSBURG-2	GERMANY	REQMT	864	FEB 1979	FEB 1979	75
VALDECABALLEROS	SPAIN	LTFC	926	FEB 1979	FEB 1979	92
BIBLIS-A	GERMANY	REQMT	1150	APR 1979	OCT 1982	214
HAERGASSEN	GERMANY	REQMT	640	MAY 1979	MAY 1984	105
						\$1046

POSSIBLE ADDITIONAL TERMINATIONS/ASSIGNMENTS

	<u>NUMBER</u>	<u>MWE</u>	<u>VALUE</u>
U.S.	15	15,891	\$1.7 BILLION
FOREIGN	6	5,958	\$0.7 BILLION

457 1.9

1979

ROADBLOCKS TO DOE SUPPLYING
ENRICHMENT SERVICES

- o Non-Proliferation Act Of 1978
 - SUBSEQUENT ARRANGEMENTS IN FEDERAL REGISTER
 - RENEGOTIATION OF AGREEMENTS FOR COOPERATION
 - APPROVAL TO RETRANSFER MATERIALS
 - NO REPROCESSING
- o EXPORT LICENSES
 - FIRM DOE CONTRACT WITH UNCERTAINTY IN ABILITY TO EXPORT
- o FOREIGN COMPETITION AND NATIONALISM
 - URENCO/GERMANY
 - EURODIF/ITALY, SPAIN
 - USSR/EUROPE
- o ACTIONS BY STATE REGULATORY COMMISSIONS
 - CALIFORNIA - DEFACTO MORATORIUM
 - WISCONSIN - NEW PLANT APPROVAL VERY DOUBTFUL
 - NEW YORK - NEW PLANT APPROVAL QUESTIONABLE
- o INTERVENOR AND BALLOT INITIATIVE ACTIVITIES
 - AUSTRIA - NO NUCLEAR PLANTS
 - SWITZERLAND - NARROW VICTORY FOR NUCLEAR POWER
 - MONTANA - DEFACTO MORATORIUM
 - SWEDEN - NUCLEAR REFERENDUM
- o PUBLIC PERCEPTION OF RISKS, WASTES, ETC.
 - CHINA SYNDROME - MOVIE
 - MOBILIZATION FOR SURVIVAL - WORLDWIDE PROTEST
 - THREE MILE ISLAND - ACCIDENT
- o U.S. FOREIGN POLICY ISSUES
 - INDIA - HAVE NOT SIGNED NPT
 - KOREA - REVISED CEILING IN AGREEMENT FOR COOPERATION
 - SOUTH AFRICA - PROLIFERATION AND FOREIGN POLICY CONCERNS

POOR ORIGINAL

ENRICHMENT EXPORT LICENSING

FIVE YEAR EXPORT LICENSE CONCEPT IS

COMPATIBLE WITH FIVE YEAR ROLLING FIRM COMMITMENT

PERIOD IN DOE ENRICHMENT CONTRACT

12/11/63
1/13/67

11/63

1/11/67

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POTENTIAL ENRICHMENT MARKET OPPORTUNITIES

<u>COUNTRY</u>	<u>UNCOMMITTED ENRICHMENT NEEDS BY 1990</u> (GWE)
BRAZIL	2.4
CHILE	0.6
DENMARK	0.9
FINLAND	0.9
GREECE	0.6
ISRAEL	0.9
KOREA	1.8
MEXICO	1.2
PAKISTAN	0.7
PHILIPPINES	0.6
PORTUGAL	0.6
SWEDEN	1.0
SWITZERLAND	0.6
TAIWAN	4.8
TURKEY	0.9
YUGOSLAVIA	1.2
UNITED STATES*	?

*DOMESTIC NUCLEAR PROGRAM UNCERTAIN