Authority MARA Date 0/5/16

THE DEPUTY SECRETARY OF STATE
WASHINGTON

Ceture to D. Mind

August 13, 1976

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MEMORANDUM FOR THE SECRETARY

FROM:

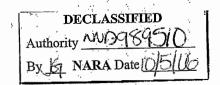
Charles W. Robinson

SUBJECT: Nuclear Negotiations for Iran

Attached is a memorandum of August 12, 1976 from Irving, Vest and Lord on the subject of nuclear negotiations with Iran. I am in general agreement with this memorandum, and concur in its recommendations although I believe the treatment of "commercial risk" is unduly complicated.

I believe that the U.S. can underwrite any excess costs to Iran resulting from our "buy back" arrangement without incurring undue financial burden. Until such time as the value of the products from reprocessing (enriched uranium and plutonium) exceeds the costs of reprocessing, the spent rods have no value and therefore Iran has not incurred any economic loss. This condition prevails today and will probably continue for 5-10 years in the future.

When the commercial value of enriched uranium and plutonium increase sufficiently to give the spent rods economic value, we would have to compensate Iran for any loss it has suffered as a result of our reprocessing of the spent rods. The cost to transport spent rods from Iran to the U.S. plus the cost of reprocessing in a larger more efficient U.S. plant would then have to be compared with reprocessing costs which Iran might otherwise have faced in a domestic reprocessing facility. The principle is relatively simple and I would not anticipate any insurmountable problems in arranging an acceptable formula with Iran. Furthermore, I don't



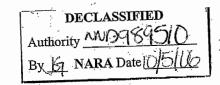
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believe that there would be any great financial burden to the U.S. in assuming the "commercial risks" in such a buy back arrangement.

Attachment:

August 12 Memo on Nuclear Negotiations for Iran.



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DEPARTMENT OF STATE

ACTION MEMORANDUM

S/S

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August 12, 1976

NODIS

TO:

The Secretary

THROUGH: The Deputy Secretary

FROM:

OES - Frederick Irving

PM - George Vest

S/P - Winston Lord

DELIVERED DIRECTLY TO_____NOT REVIEWED BY S/S

met with HAIC 1/16;

name.

Nuclear Negotiations with Iran

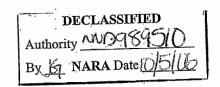
The Problem

To develop a strategy designed to meet the issues raised by the Iranians in the recent discussions in Tehran on a nuclear power agreement.

Background/Analysis

In your report on your discussions with the Shah and other Iranian officials on the nuclear agreement for cooperation, you highlighted two key issues that we must address on an urgent basis if we are to maintain the forward momentum you established in Tehran and, in particular, to be able to respond constructively to the Iranians by September 1. These are the Iranian "commercial risk" concern and the NRC licensing issue. Each of these is addressed below, followed by a suggested approach and procedural options for your decision.

First, however, it is necessary for us to reconcile apparent discrepancies between your report on the negotiations (Tab 1) and the "Principles of a Suggested Approach" (Tab 2) developed jointly by Dr. Etemad and by Myron Kratzer and Nelson Sievering, which is being used by ERDA as a basis for drafting revised agreement language.



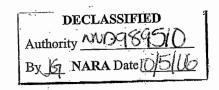
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- -- Your message indicated that you had made it clear to the Shah: (1) that under current and foreseeable conditions, a binational reprocessing plant in Iran would not be possible and (2) that reprocessing in Iran on a purely national basis would not be an acceptable solution.
- -- However, the "Agreed Principles" explicitly treat the binational plant alternative as a viable option and further provide that, if this and the other two options prove impossible, the bottom line would be U.S. agreement to national reprocessing in Iran, provided that the reprocessing took place in a facility in which the parties agree that effective safeguards are being continuously applied (see Agreed Principle No. 7). With regard to both of these points, it seems apparent that you were alerting the Shah that, in practice, we would exercise our exchange/repurchase option, thereby not adopting the binational alternative and always foreclosing exercise of the national plant option. But, in order to avoid any uncertainty in our coordination with ERDA on revised agreement language, Mr. Robinson has indicated he will wish to clarify these two points with you.

The Problem of "Commercial Risk"

You will recall that the Iranians made clear to you that the acceptability of the reprocessing options we have proposed would depend upon U.S. willingness to bear the "commercial risk" if, through the exercise of our veto rights, we required Iran to follow something other than the most economic approach to reprocessing U.S. fuel.

This condition would appear to require the U.S. to underwrite any excess costs above the "most economical approach." There are some difficulties with a requirement this sweeping. First, it would be necessary to establish a baseline "most economical approach" beyond which the U.S. would assume additional costs. Given the lack of experience in a plutonium-recycle fuel economy, major uncertainties about long-term prices, and the problems in establishing hypothetical unit costs for reprocessing in Iran, it would



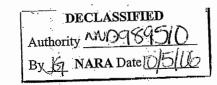
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be extremely difficult to agree on such a baseline. Second, if it involves financial cost to the U.S., it could encourage other countries (e.g., India) to seek similar financial concessions for return of their spent fuel—compounding the net cost to the U.S. in the long term. Another factor is that this arrangement would go beyond the obligations which Iran has asked of other suppliers; the FRG, for example, has obtained certain veto rights over third-country reprocessing without similar financial obligations.

It is likely, however, that Iran's main concern on this score would be met by a fuel-exchange option under which Iran would return its spent fuel to the U.S. in exchange for new fuel assemblies, provided the terms of the exchange were sufficiently attractive. Such an arrangement should give the Shah a large measure of assurance that U.S. veto rights would not involve a significant commercial risk.

The greatest problem in devising a workable and equitable fuel-exchange option is to determine the value to be placed on the spent fuel. There is no market price for spent fuel at present. commercial value only when the total cost of manufacturing mixed-oxide (MOX) fue (which combines the recovered material with fresh uranium) is competitive with the cost of low-enriched uranium (LEU) fuel. However the associated costs of recycle (reprocessing, additional fabrication, waste handling, and transportation) may more than offset the savings in uranium feed and enrichment, resulting in a higher net cost than for fresh LEU fuel. In these circumstances, reprocessing is uneconomic and the spent fuel has no value; indeed storage costs give it a negative value.

Given these facts, we believe that an equitable and workable proposal for exchanging fuel might best be based upon the comparative costs of new LEU fuel assemblies, and of manufacturing MOX assemblies using the recovered material from spent Iranian fuel, with the difference credited to Iran.



-4-

In making this cost comparison, the cost of producing the MOX fuel would be the actual cost to the U.S., as determined in consultation with the GOI. In order to avoid problems and inequities arising from price shifts, the cost comparison and the consequent value placed upon the spent fuel would not be fixed in advance, but left for negotiation at the time that actual exchanges are proposed.

If the cost of producing MOX fuel as determined in such consultations should exceed the cost of LEU fuel, no exchange would take place, and Iran would continue to store U.S. spent fuel unless one of the other options were agreed. This would in fact occur only in circumstances where economic factors made reprocessing of spent fuel uneconomic, and Iran has repeatedly stressed that it has no interest in reprocessing until economically justified.

The concept also allows for a range of possibilities in calculating the credit to be allowed for spent fuel, through the possible absorption of some of the recycle costs by the U.S. These are listed below in order of increasing cost to the U.S., and increasing attractiveness to Iran:

- -- The U.S. might absorb pro-rated <u>capital</u> <u>costs</u> for the facilities rather than calculating them as part of the cost of recycle. This would not require any additional U.S. expenditure assuming that recycle is undertaken domestically. In comparison with establishing her own facilities, it would give Iran very substantial savings.
- -- The U.S. might absorb the cost of transporting spent fuel to the U.S. These costs are relatively moderate and U.S. absorption could be considered a reasonable concession if the U.S. insists on fuel return.
- -- We might consider absorbing the cost of waste handling and disposal if this were necessary to reach agreement. This option might, however, exacerbate the domestic opposition to accepting foreign nuclear wastes which can be expected under any fuel-exchange arrangement.

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By J. NARA Date 0510

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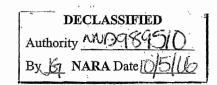
Alternatively, in calculating the value of the spent fuel, we might assume a higher price for uranium feed and/or enrichment services than the current market price. In effect, we would then be paying a premium for spent fuel in the expectation that the additional cost and interim storage costs would be offset by anticipated increases on uranium and enrichment prices. This option could be particularly useful if Iran insisted on exchanging fuel before the U.S. has begun domestic fuel recycle, or if its spent fuel had negative value calculated at current prices.

There are further options with respect to how Iran might be permitted to use the credits for its spent fuel. It might for example be credited only against purchase of fresh LEU fuel, which would be optimal from the non-proliferation viewpoint. It might be returnable as mixed-oxide fuel; this is less satisfactory but consistent with the third-country reprocessing option and, depending on prices, possibly more economic from the Iran viewpoint. It might be reimbursed in cash, giving Iran greater flexibility and avoiding possible charges that our underlying motive is to increase U.S. fuel sales. Finally, in view of Iran's interest in an eventual breeder program, we may wish to include some provision allowing for the return of plutonium for this purpose.

If you approve the general thrust of this proposal, we would develop it in more detail, including a number of sub-options along the above lines.

NRC Licensing and Congressional Implications

We fully concur that a key factor, in the eyes of both Iran and to varying extents other nuclear importers, is the degree to which they can rely on reliable and uninterrupted supply from the U.S. as long as they faithfully abide by their legal obligations. As you know, the Nuclear Regulatory Commission (NRC) has the authority to block any specific nuclear export which it determines not to be in U.S. common defense and security interests. Moreover, a number of legislative



-6-

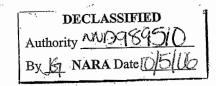
proposals including the Export Reorganization and the Non-Proliferation Acts introduce further uncertainties into the future administration and control of our nuclear export policies.

This problem clearly needs to be dealt with if Iran is to do nuclear business with the U.S. and, more generally, if the U.S. is to be perceived once again as a reliable exporter of non-sensitive nuclear materials, equipment and technology. Under existing legislative constraints, we can:

- -- remind the GOI of the unbroken record of U.S. nuclear supply to date and assure it of Presidential determination to maintain this record while improving institutional nuclear export arrangements;
- -- following consultations with Congress, inform the GOI that the President would be prepared to publicly reaffirm U.S. supply undertakings to Iran upon Congressional approval of the nuclear cooperation agreement;
- -- seek parallel support from influential members of Congress, and possibly a Joint Resolution expressing Congressional agreement with the Presidential declaration.

Each of these steps can be generalized to apply to all countries living up to their non-proliferation commitments, including Iran as a committed supporter of the NPT. However, they all have the drawback of not providing ironclad assurances of future U.S. supply to nuclear consumers, and in particular of not guaranteeing to Iran uninterrupted implementation of U.S. fuel supply and exchange commitments. In order to do this, there are a number of possibilities:

-- explore changing NRC procedures to permit issuance of a general license covering ab initio the sum total of U.S. export commitments to Iran (and possibly other countries), provided it lives up to its legal obligations;



-7-

- -- obtain new nuclear export legislation from the Hill which would provide such general assurances of supply or at least permit the NRC to do so;
- -- beyond this, seek legislative restoration to the President of ultimate control over nuclear export licensing, subject if necessary to Congressional override and Presidential veto procedures, which would permit the President to assure Iran (and other countries) of uninterrupted U.S. nuclear supply.

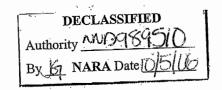
Each of these steps, unfortunately, would prove very difficult to implement. The NRC may not feel that it has the authority to issue a general license and the Congress may refuse to give it such authority. The Hill may enact new export constraints outweighing any assurances we could obtain through the legislative route. However, the policy and institutional issues appear so profound that it may be necessary to open consultations with both the NRC and the Congress to move toward fundamental reforms of our nuclear export administration, if we are to achieve both our nuclear supply and non-proliferation objectives.

Proposed Next Steps

In light of this discussion, we should consider three sets of actions: those relating to next steps in our Iran negotiations, those pertaining to our general nuclear fuel assurances and exchange policy, and follow-up consultations with the Congress to reinforce forward movement.

In order to try to meet the September 1 deadline mentioned by you to the Shah, we are proceeding within the Department to develop approaches to the Iran-related diplomatic problems identified above, at the same time as ERDA is working on a new draft text of a nuclear agreement. This is bureaucratically consistent with the previous pattern of State/ERDA backstopping of our Iran nuclear negotiations.

Of course, the White House Nuclear Policy Task Force is continuing to discuss with us and other agencies general policy approaches on many of these issues, but neither it nor ERDA is yet focusing on



-8-

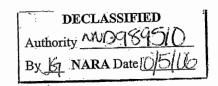
fuel exchange and commercial risk formulas which might be useful in the case of Iran. Because of this, we would appreciate your authorization to share the outcome of your discussions on Iranian nuclear issues with ERDA and to obtain its cooperation in refining the fuel-exchange proposal outlined above. In addition, we believe it would be worthwhile to pursue with the Task Force the potential utility of such formulas, in the light of our analysis, in deterring national reprocessing in other countries.

Beyond this, we believe that, in consultation with H and L, we should develop a Congressional strategy for your use in pursuing our non-proliferation approach with influential members of Congress. Indeed, such consultations would be imperative if we are to head off disruptive legislative initiatives and obtain the necessary Congressional support for policies designed to meet the kinds of issues highlighted by the Iran negotiations.

Given these considerations, we believe that you have three procedural options for achieving our objectives regarding Iran and our overall non-proliferation interests:

Option I: Ask the White House Task Force to take the lead in addressing all policy issues, both Tran-related and general, regarding fuel assurances, exchange and "commercial risk."

Under this option the Task Force would develop possible options for both Iran and our general policy, in coordination with State and other interested agencies, on the basis of an initial input from the Department consisting of the substantive approaches in this memorandum. These options would be fully reflected in its report to the President, but you or the President could of course choose to take action prior to the Presidential message scheduled for mid-September. While this option would consolidate all activity in one on-going study group, it could well reduce the Department's control over the outcome and possibly delay action on the Iran negotiations until Presidential decisions are made on our overall policy.



- 9 -

Option 2: Develop next steps in Tran nuclear negotiations in coordination with ERDA for your approval and Task Force comments, followed by your recommendation to the President.

Under this option, the Department and ERDA would use the initial input mentioned under Option 1 to develop independently an action plan on Iran. Following your review and approval, we would work with the NSC in soliciting comments from the White House Task Force prior to finalizing the package for your recommendation to the President. At the same time, we would pursue with the Task Force the potential utility of this approach in deterring national reprocessing in other countries. option would permit relatively rapid articulation of your suggested approach to the Iran negotiations by State and ERDA, while ensuring consistency with the White House study. On the other hand, it could result in a Task Force move to delay further decisions on our Iran negotiations until the President makes determinations on the overall nuclear policy study in September.

Option 3: Develop next steps in Iran nuclear negotiations in coordination with ERDA, for you to review and forward to the Presdient through the NSC.

We would, under this option, develop an action plan in the same manner as under Option 2. While we would keep the Task Force advised of the substance of our general approach, and ensure its consistency with the White House study, we would not formally solicit Task Force comments. At the same time as you forward the recommended action package to the President, we would pursue more general policy implications of the Iranian negotiating formulas with the Task Force. This option could give you maximum control over future implementation of your guidance for the Iran negotiations.

On balance, we all favor Option 3 because it permits the most rapid development of our negotiating position with Iran and maximizes the Department's control over the outcome, while keeping the White House Task Force generally informed.

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	By 5 NARA Date 0/5/16

- 10 -

Recommendations:
1. That you authorize us to share the outcome of your discussions on Iranian nuclear issues with
ERDA and to obtain its cooperation in refining the proposals outlined above for fuel exchange and
minimizing "commercial risk."
Approve Disapprove
2. That you authorize us to work with H and L
in developing a Congressional strategy in pursuing our Iran-related and general non-proliferation
approaches with influential memebers of Congress.
Approve Disapprove
3. That you authorize us to develop next steps on Iran in coordination with ERDA, for you to review
and forward to the President through the NSC (Option 3)
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Approve Disapprove
ALTERNATIVELY, that you direct us to develop next
steps on Iran in coordination with ERDA for your
approval and White House Task Force comments, followed
by your recommendation to the President and joint
development of general policy options (Option 2).
Approve Disapprove
MPPTOVC DIBMPPTOVC
ALTERNATIVELY, that you direct us to ask the
White House Task Force to take the lead in addressing
all pertinent policy issues, both Iran-related and
general (Option 1).
Diganara
Approve Disapprove
Attachments:

Tab 1 - Report on the Negotiations

Tab 2 - Principles of a Suggested Approach

OES/NET:JBDevine:PM/NPO:GOplinger:S/P:JKalicki x27036:8/12/76 Drafted: