

CHALLENGE INSPECTIONS IN ARMS CONTROL TREATIES: ANY LESSONS FOR  
STRENGTHENING NPT VERIFICATION?\*

Jack Allentuck

BNL--46941

Department of Nuclear Energy  
Brookhaven National Laboratory  
Upton, New York 11973 USA

DE92 019496

ABSTRACT

Recent revelations of an ongoing and sophisticated nuclear weapons development program in Iraq have lead to suggestions for strengthening International Atomic Energy Agency (IAEA) safeguards. Especially troubling was the realization that safeguards, as presently applied, could not possibly have detected such a program. It is clear that the inspections which have taken place in Iraq since the Gulf War could only have been imposed on a nation which had suffered a severe military defeat. It has, however, been argued that challenge or "challenge like" inspections already incorporated in or proposed for the Treaty on Conventional Armed Forces in Europe (the CFE Treaty) the Chemical Weapons Convention (CWC) and the Treaty Between the United States and the USSR on the Reduction and Limitation of Strategic Offensive Arms (START) might serve as models for enhanced special inspections in the Treaty on the Non-Proliferation of Nuclear Weapons (the NPT).

The expectation that none of the challenge or challenge like inspections in the above treaties would provide a model for the NPT was confirmed although certain characteristics of these inspections do provide useful points of departure. Although the context of challenge inspections in CWC bears substantial similarity to the NPT, it is from the provisions for "suspect-site" and "formerly declared site", challenge like inspections in START that innovative ideas for strengthening special inspections in NPT may be derived.

Introduction

"Challenge-like" is a concept which is introduced in this paper. It refers to an inspection which has all the characteristics of a challenge inspection except that it is for a declared site. In the context of challenge inspections, the degree of similarity among different treaties is measured by characteristics such as whether or not the treaty is multilateral or bilateral, whether there is a right of refusal, the time provided the

\*This work was performed under the auspices of the U.S. Department of Energy, Contract No. DE-AC02-76CH00016.

inspected party to prepare for the inspector, whether or not the inspection site is declared or undeclared, the degree of access provided, does a violation relate to a quantity or a process, the scale of a significant violation, and whether or not the facility being inspected is part of a private sector enterprise. Similarity in context of challenge inspections in different treaties might be expected to indicate that treaty provisions for such inspections might also be similar. In the paragraphs which follow the provisions for challenge or challenge like inspections in the different treaties are described and the extent of their similarity is considered.

### NPT Special Inspections

In INFCIRC-153 the International Atomic Energy Agency (IAEA) specifies the structure and content of agreements between it and States required by the NPT. Included in these requirements is the right of the IAEA to conduct special inspections under certain circumstances. Conditions which may give rise to special inspections include the IAEA's need to verify information in special reports--- reports relating to the possible loss of nuclear materials or failure in containment---or the need to expand on information made available by States or in routine reports. Under these circumstances special inspections pertain only to declared sites and materials. Another circumstance which gives rise to a special inspection is the need for access to locations or information not available during ad hoc or routine inspections. To obtain such access the IAEA is required to consult with the state which then may or may not grant it. Even if an interpretation that the right to make an inspection at an undeclared site is thus intended, the right of refusal by the State is implicit. Choosing a model from a menu of challenge inspections is likely to be less difficult than amending the NPT to permit special inspections at undeclared sites without the right of refusal. This paper assumes that an amendment is feasible and proceeds to examine existing or proposed challenge or challenge-like inspections in several arms control treaties to find useful characteristics for enhanced NPT special inspections.

### The CFE Treaty<sup>1</sup>

The CFE Treaty, a multilateral treaty, was signed in November 1990 by 21 European States and the U.S. and Canada. Its objectives were to be attained by the reduction of conventional military forces and separating the forces confronting one another in the central zone of Europe. The CFE established limits on overall

---

<sup>1</sup>Some of the motivation for the treaty has been altered by the breakup of the Soviet Union.

holdings of certain categories of military equipment---treaty limited equipment (TLE)---and on the number of TLEs stationed in specified zones. Parties are required to notify all other Parties of the location of TLEs with active military units and in storage facilities of various kinds. Since challenge inspections are to assure that TLEs are not held at undeclared sites they may only be conducted at such sites. Challenges are cued by information provided through national technical means (NTM).

Although the treaty is multilateral, inspections are not. The right of each party to verify the activities of any other party, as well as the obligation of each party to accept inspections from any other party, is provided for in the CFE Treaty. The maximum number of inspections which a party is required to accept at declared sites is the passive inspection quota. The challenge inspection quota, inspections which may be made at non-declared sites only, is 15 percent of the passive inspection quota which in turn is based on its objects of verification defined roughly as any location in the area of application of the treaty where TLEs are held by the inspected party. Each challenge inspection counts against the passive inspection quota. In contrast to passive inspections, challenge inspections may be refused. When this occurs, the inspecting party may raise the matter before the Joint Consultative Group (JCG) in which all the parties are represented for the purpose of addressing matters of compliance or disputes arising from implementation of the Treaty.

Notification of its intention to carry out an inspection is provided by the inspecting party at least 36 hours in advance of arrival at a point of entry on the territory of the host party. It does not specify the area to be inspected. Only after the inspection team arrives at the point of entry and is met by the escort team does it designate the inspection site. This is when the inspected party first learns that a challenge inspection is intended.

The inspected party has two hours within which to accept or refuse the challenge inspection. If it accepts it has up to six hours to prepare for the arrival of the inspection team. The inspected party is responsible for transporting the inspection team to the designated area. This must be done within nine hours or, if in difficult terrain, within 16 hours. Thus the six hours allowed for preparation to receive the inspectors is actually a minimum which because of travel requirements may be extended to nine hours or even 16 hours in exceptional circumstances.

The inspection team, limited to nine individuals may spend up to 24 hours at the specified area and may bring an assortment of inspection aids including instant 35mm cameras. The escort team is required to facilitate the inspection team's taking of photographs. However, photographs of building interiors may be taken only with the permission of the inspected party which has the right to shroud

individual sensitive items of equipment.

Before leaving the site, the inspection team must provide the escort team with a written, factual report in standardized form. Wherever possible, points in contention are resolved prior to the preparation of the report. The escort team may include its written comments in the inspection report.

### START

START specifies the numbers of deployed offensive delivery systems and accountable heavy bomber and ballistic missile warheads allowed the parties at the end of each of three phases of a weapons reduction period. There are numerous categories of notifications including one for inspections. On-site inspections and continuous monitoring activities are established to verify certain notifications. These are in addition to NTM. The Treaty establishes 12 different types of on-site inspections of which two are "challenge-like".

"Suspect-site" inspections provide confirmation that covert assembly of ICBMs for mobile launchers or of the first-stages of such ICBMs is not taking place. Such inspections may occur at six specified facilities; three in the United States - Ogden, Sacramento and Magna; and three in the former Soviet Union, Zlatoust, Bershets and Petropavlovsk. While only six facilities are included at present as suspect sites, facilities at which continuous monitoring has ceased and others not subject to continuous monitoring which in the future produce ICBMs or SLBMs as large or larger than ICBMs for mobile launchers of ICBMs, will be added.

No more than three suspect site inspections may be conducted in a single year. No more than one suspect site inspection may be conducted at one time and no more than two at any one facility in a single year. Suspect site inspections are subtracted from an annual routine inspection quota.

START also provides for challenge-like inspections at formerly declared sites, sites which had been declared but have been reported shut-down, to assure that they are not used for covert ICBM production.

The rights and obligations of the parties with regard to both challenge-like inspections in the START Treaty are similar. Notification of an impending suspect site or formerly declared site inspection must be made 16 hours in advance of the estimated time of arrival at a point-of-entry. Notification is through the Nuclear Risk Reduction Center established in an earlier treaty between the U.S. and U.S.S.R. Designation of the site to be inspected is made after the arrival of the team at the point-of-entry. The inspected party is then required to transport the inspection team to the inspection site within nine hours.

An inspection team is limited to 10 individuals which may be organized into subteams of two or more inspectors. One of these teams may be assigned to inspect vehicles leaving the inspection site.

No later than one hour after the inspection site is designated, the inspected party is required to implement pre-inspection restrictions at that location which remain in effect until the completion of pre-inspection procedures following the arrival of the inspection team. During this period vehicles, containers and launch canisters large enough to contain an item of inspection may not be removed from the site.

Prior to the inspection of a structure at a suspect site, inspectors may be posted at portals large enough to permit passage of an item of inspection. During the inspection of the structure no object is permitted to depart from the structure until it has been inspected or an inspector declares that there is no intention to inspect it.

The inspection must be completed within 24 hours and inspectors have the right to inspect the entire site. The Treaty specifies in detail equipment which may be brought to the inspection site to facilitate inspection activities.

The Treaty establishes the Joint Compliance and Inspection Commission (JCIC) as the framework within which questions of compliance may be resolved. Of special interest is the provision that a party requesting a special session of the JCIC may propose a visit by the JCIC with special right of access to the facility or location in question. Such a request may be made by the inspected party as well. Visits with special rights of access are conducted according to the Treaty provisions for inspections. Thus, they are in essence suspect-site inspections by the JCIC, however, with right of refusal.

#### CWC

The CWC is a multilateral treaty in which each party undertakes never to acquire, stockpile or retain chemical weapons and to destroy those which it controls. It establishes an international organization (the Organization) analogous to the IAEA to administer it. The Secretariat headed by a Director General is responsible for carrying out inspections including challenge inspections.

The provisions for both challenge-inspections and routine inspections reflect the fact that chemical weapons may be manufactured in a facility used to produce chemicals required by a civilian economy.

A dichotomy exists between the need to protect the confidentiality of a proprietary process and the need for challenge inspec-

## Discussion

A common objective of challenge or challenge-like inspections is to provide assurance, not available from routine inspections, that activities inconsistent with the aims of the treaty are not taking place. Thus, in the CFE Treaty where inspections focus on holdings of TLEs a challenge inspection may only take place at an undeclared site, since routine inspections at declared sites are adequate for determining the extent of holdings at these sites. A TLE inspection---routine or challenge---involves little more than estimating the number of TLEs at a given location for comparison with a declaration.

In the case of START, challenge-like inspections are concerned with the covert manufacture of ICBMs as well as other activities inconsistent with the terms of the Treaty. Covert ICBM manufacture at an undeclared site is not credible given the scale of the facility and the product and the likelihood of detection by NTM. Covert production at a declared site is much more likely hence provisions for "suspect-site" and "formerly declared site" inspections are made. In the case of the CWC, because toxic chemicals may easily be manufactured at declared facilities and at disguised small scale facilities, challenge inspections are provided for at declared sites as well as undeclared sites. The same holds true for the NPT case where activities inconsistent with the Treaty's objectives may take place at either declared or undeclared sites. The scale of covert activities might be sufficiently small as to permit disguising the true function of an undeclared facility or engaging in a clandestine activity at a declared site.

The principal characteristics of the challenge or challenge-like inspections in CFE, START, CWC are compared with each other and with NPT special inspections in Table 1.

The similarity between the context of a challenge inspection in CWC and NPT special inspections is immediately apparent. There are two differences: the right to refuse a challenge inspection in the NPT and the right to inspect an undeclared site, absent in the NPT. Amending the NPT or otherwise changing the IAEA inspection regime is important to the effectiveness of special inspections. This is especially true when the scale of a significant violation is small. Adopting the START concept of listing sites which could accommodate covert activities in a protocol to the Treaty and where the list could be amended might be a useful approach for enhancing the NPT regime. This might prove more acceptable than inspections of undeclared sites. One area in which NPT and CWC share a deficiency is in highly restricted access by inspectors. Another apparent deficiency results from allowing protracted negotiations about access between the inspectorate and the inspected after designation of the site. This has the consequence of allowing the inspected site to attempt to disguise covert operations which may

be underway. Another START concept which might find useful application in NPT special inspections is the right of the JCIC to conduct its own suspect site inspection. In the IAEA context the Board of Governors would have the right to order an independent inspection to resolve issues in dispute.

### Conclusions

There is substantial similarity between CWC challenge inspections and NPT special inspections. These inspections would be more effective in both regimes by reducing the period of time between the designation of the site to be inspected and the arrival of the inspection team and by increasing access by the inspectors. As opposed to the right of refusal in CFE, the right of refusal in NPT special inspections is a serious deficiency because of the small scale of a significant violation in the latter. The inability to conduct a special inspection at an undeclared site might be mitigated in part by adopting the "suspect-site" concept from START and actually maintaining a list of sites, subject to amendment, in a protocol to the Treaty which would be subject to special inspection. Another concept from START which might usefully be adopted by the NPT regime would be to permit the final arbiters, the Board of Governors in NPT, to conduct their own inspection to resolve disputes between an inspected Party and the inspectorate.

**Table 1**  
**Challenge/Challenge-Like Inspection Characteristics**

	CFE	START	CWC*	NPT
Treaty States	Signed	Signed	In Negotiation	Signed
Treaty Type	Multilateral	Bilateral	Multilateral	Multilateral
Inspection by	State Parties	State Parties	Internat'l. Org.	Internat'l. Org.
Declared Site	No	Yes**	Yes	Yes
Undeclared Site	Yes	No	Yes	No
Short Notice	Yes	Yes	No*	No
Quota	Yes	Yes	No	No
Inspection Type	Challenge	Challenge-like	Challenge	Special
Violation relates to a:	Quantity	Process	Process	Process
			Quantity	Quantity
Scale of militarily significant violation	Large	Large	Small	Small
Right of Refusal	Yes	No	No	Yes
Need to Protect Proprietary Information	No	No	Yes	Yes

\*U.S. Version

\*\*Suspect-site

#### DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.



**END**

**DATE  
FILMED**

**10 / 27 / 92**

