Government.no

Recommendation on exclusion

BAE Systems Plc., Boeing Co., Finmeccanica Sp.A., Honeywell International Inc., Northrop Grumman Corp., United Technologies Corp. and Safran SA

Letter | Date: 05/01/2006 | Ministry of Finance (http://www.regjeringen.no/en/dep/fin/id216/)

The Advisory Council on Ethics for the Norwegian Government Petroleum Fund

Oslo, 19 September 2005

(Unofficial English translation)

Recommendation on exclusion

Introduction

The Advisory Council on Ethics for the Government Petroleum Fund recommends that the companies BAE Systems Plc., Boeing Co., Finmeccanica Sp.A., Honeywell International Inc., Northrop Grumman Corp., United Technologies Corp. and Safran SA be excluded from the Petroleum Fund because they are presumed to be involved in production of nuclear weapons.

In the Ethical Guidelines' point 4.4, first sentence, it is stated:

"The Advisory Council shall issue recommendations on negative screening of one or several companies on the basis of production of weapons that through normal use may violate fundamental humanitarian principles."

In the Government whitepaper on ethical guidelines (NOU 22: 2003), [1]http://odin.dep.no/fin/english/topics/p10001617/p10001682/006071-220009/dok-bn.html and through the subsequent discussions of the guidelines in Parliament it was decided that the Fund shall not invest in companies that "*develop and produce key components to nuclear weapons*". The Council assumes that "development and production" encompasses somewhat more than the actual production of nuclear warheads. It is presumed that the missile carrying the warhead as well as certain forms of testing of new weapons and maintenance of existing weapons also fall within the scope of the exclusion criteria.

The Council has reviewed the Petroleum Fund's portfolio and benchmark portfolio with the purpose of identifying companies that are involved in development and production of key components for nuclear weapons. It is to be emphasised that this recommendation does not necessarily contain a complete list of companies that fall within the exclusion criteria and that further recommended exclusions on this basis may follow later.

Further details on nuclear weapons

According to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), [2]Treaty on the Non-Proliferation of Nuclear Weapons, http://disarmament2.un.org/wmd/npt/npttext.html nuclear weapons are weapons of mass destruction that are illegal for most states to possess. The five so-called nuclear states (USA, UK, France, Russia and China) are, for historical reasons that will not be discussed here, exempted from this ban. It can also be assumed that India, Pakistan and Israel have developed nuclear weapons.

The effects from the use of nuclear are of a nature that makes it difficult to envisage that such use could discriminate between military and civilian targets. Use of such weapons will in any case render long term environmental damage and it can also be argued that it will lead to unnecessary suffering and superfluous injury which must be weighted against the military necessity. Many would therefore argue that use of nuclear weapons violates fundamental humanitarian principles. 3Ref. the so called principle of proportionality, which is e.g. reflected in Article 35 of the first additional protocol to the Geneva Conventions. This problem is subject to further discussion in the Government Whitepaper on Ethical Guidelines (NOU 22: 2003).
4http://odin.dep.no/fin/english/topics/p10001617/p10001682/006071-220009/dok-bn.html

There are two main forms of nuclear weapons; fission and fusion based. The principle of fission based weapons is that atoms of fissionable material (enriched uranium or plutonium) are split into smaller components. This fission releases energy which creates the nuclear explosion. Fusions based weapons, also called hydrogen bombs, are based on the principle of isotopes of hydrogen merging to form helium. In order to start a fusion reaction, a fission process is used. The fusion process is the same as the sun's and releases huge amounts of energy.

Nuclear weapons have much greater explosive effects than conventional weapons. The most powerful fusion weapons tested had an effect equivalent to 50 million tons of conventional explosives (TNT). In addition to the shock wave caused by a nuclear detonation, energy in the form of intense heat and radioactive and electromagnetic radiation is emitted. 5Federation of American Scientists (www.fas.org)

Nuclear weapons have been used twice in conflict when the USA in 1945 dropped atomic bombs on Hiroshima and Nagasaki. Both these bombs were fission based. The bomb dropped on Hiroshima used enriched uranium, where as the bomb dropped on Nagasaki used plutonium as fissionable material. Both had explosive effects equivalent to approximately 20 000 tons TNT.

During the cold war, increasingly powerful nuclear weapons were developed as means of deterrence. A recent development that has been reported [6]http://news.bbc.co.uk/2/hi/americas/3126141.stm is the development of so called “mini nukes”, [7]http://www.cbsnews.com/stories/2003/08/06/national/main566869.shtml i.e. tactical nuclear arms to be used against underground fortifications. These weapons are reported to have an explosive effect of approximately 1000 tons TNT. The purpose is to use such weapons in actual warfare and not as a deterrent. Such a strategy will lead to the collapse of the non-proliferation regime and will probably also lead to more states seeking to acquire nuclear weapons.

The production of nuclear weapons is very resource demanding and requires a broad range of means and efforts. The most critical component in a nuclear warhead is a sufficient amount of fissionable material, either plutonium or enriched uranium. Plutonium is not a naturally occurring element but is produced in nuclear reactors on the basis of uranium. Uranium occurs in nature and is extracted from mining, but must be processed and enriched to be usable in nuclear weapons. Enrichment may be done in different ways but is in any case very demanding with regard to resources and technology. [8]http://www.fas.org/irp/imint/doe_ornl_k25_2.htm Also uranium used as fuel in power producing nuclear reactors must be enriched. The grade of enrichment of uranium is lesser for nuclear fuel for civilian purposes than for fissionable material in nuclear weapons. Plutonium refined to so-called weapon’s grade has no civilian applications.

Other components of a nuclear warhead can be relatively simple. Explosives and detonators to start the chain reaction are required, and the warhead must be packaged such that it is intact when it reaches its intended target.

Nuclear weapons can be brought to their targets by different means; they can be dropped or launched from aircraft, or launched by missiles from stationary or mobile sites on land or from surface ships and submarines.

Interpretation of the term “development and production of key components”

Production of fissionable material and warheads

To the knowledge of the Council, production of fissionable material that can be used in warheads and the production of the warheads themselves only take place at government owned facilities.

Development and testing of warheads

Private companies may be directly involved in the development and testing of nuclear warheads.

As a consequence of i.a. the political development related to the nuclear test ban treaty, the extent of testing of nuclear weapons has been significantly reduced in recent years, despite the treaty not having entered into force. 9http://www.ctbto.org/treaty/treaty_text.pdf However, testing of nuclear weapons may include simulations and other forms of testing that are not comprised by the treaty.

The Council considers any form of testing of nuclear weapons to be crucial to the development of nuclear weapons, and therefore such activity falls within the fund's exclusion criteria. This corresponds to the Whitepaper (NOU 2003:22), 10http://odin.dep.no/fin/english/topics/p10001617/p10001682/006071-220009/dok-bn.html
 which states that the Government Petroleum Fund should not be invested in companies that *"develop and produce key components to nuclear weapons".* This applies regardless of whether such activities take place within the framework of the test ban treaty.

Infrastructure for production of nuclear warheads

Companies that provide services related to operation and maintenance of buildings and general infrastructure at government facilities that may produce nuclear warheads, but take no other part in the actual production, are not subjected to the fund's exclusion criteria.

"Dual use" components

The complex problems related to so-called "dual use", i.e. components for nuclear weapons that may also have other applications, is an important issue in the advancement of non-proliferation.