(Unofficial English Translation)

To the Ministry of Finance

Oslo 20 September 2005

# Recommendation concerning whether the weapons systems Spider and Intelligent Munition System (IMS) might be contrary to international law

## Introduction

We refer to the letter from the Ministry of Finance, dated 31 August this year, in which the Ministry asks the Advisory Council on Ethics to assess whether the two weapons systems *Spider* and *Intelligent Munition Sysem (IMS)* would be considered illegal under the Convention on the prohibition of use, stockpiling, production and transfer of antipersonnel mines and on their destruction (The Convention). Two of the three companies that are implicated in the plans for these weapons systems have already been excluded from the Fund because of their involvement in the production of cluster weapons; General Dynamics and Alliant Techsystems (ATK). The third company, Textron, remains in the Funds' portfolio.

The basis for the request from the Ministry is section 4.3 of the Ethical Guidelines, which says that: *The Ministry of Finance may request the Council's advice on whether an investment can constitute a violation of Norway's obligations under international law.*

A given weapons system could be inconsistent with the Ethical Guidelines, even if it does not conflict with international law. The Advisory Council is already in the process of assessing whether the above mentioned weapons systems could be in violation of the Ethical Guidelines.[1] The Council might therefore issue recommendations on the relationship between these weapons systems and the Ethical Guidelines at a later time, irrespective of this recommendation which pertains to the international law issues.

## Can investments constitute a breech of international law?

Investments that might be seen as *undermining* international law standards would normally not constitute violations of international law. Certain treaties, however, contain provisions on complicity that are so far reaching that this might be the case. Article 1 of the Convention [2] says:

*1. Each State Party undertakes never under any circumstances:*

*a) To use anti-personnel mines;*

[1] The Council had a meeting with the head of the weapons section in Human Rights Watch about these weapons in June 2005.

[2] Convention on the prohibition of use, stockpiling, production and transfer of antipersonnel mines and on their destruction of September 18, 1997

*b) To develop, produce, otherwise acquire, stockpile, retain or transfer to anyone, directly or indirectly, anti-personnel mines;*

*c) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.*

*2. Each State Party undertakes to destroy or ensure the destruction of all anti-personnel mines in accordance with the provisions of this Convention.*

According to litra c, the States Parties may not "*assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention".* The question is whether investments by the Petroleum Fund will fall within the scope of this provision. The predecessor to the Advisory Council on Ethics, the Advisory Commission on International Law, answered this question in the affirmative. In their memo to the Ministry of Finance dated 11 March 2002, it was noted that: *"Because the Mine Ban Convention goes far in prohibiting any form of assistance, encouragement or inducement to production in violation of the convention, it is presumed that even a modest investment could be regarded as a violation of the article 1 (1) (c) cf. (b)."*

The Ministry of Finance based their later exclusion[3] of the company Singapore Technologies on this argument. The Advisory Council therefore assumes that investments in companies that produce antipersonnel mines can constitute a violation of international law.

**Definition of an antipersonnel landmine**

The question at hand is whether the above mentioned weapons systems will fall within the scope of the international prohibition against antipersonnel landmines. In order to answer this question one must first determine the content of the definition of an antipersonnel mine, and second, whether the weapons systems in question have technical specifications that make them fall within this definition.

The definition of an antipersonnel mine is laid down in the Convention's Article 2 (1):

*"'Anti-personnel mine' means a mine designed to be exploded by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons."*

This provision makes it clear that mines that are designed to explode by human contact falls within the definition of antipersonnel mines. Mines can be detonated by persons stepping on them, tilting them, breaking a trip-wire, or exposure to different kinds of sensors. The Advisory Council finds that all weapons that are designed to explode because of a person's inadvertent contact, falls within the definition of an antipersonnel mine, irrespective of whether they are classified as antipersonnel landmines.

[3] In the spring of 2002.

The point with such weapons is to be able to engage the enemy without being in active combat with them or even being present in the area. The mine is activated by the victim, not by the person that emplaced it.

**Are Spider or IMS illegal under the Convention?**

The next question is whether these weapons systems would be subject to the international ban on antipersonnel land mines.

The weapons program *Intelligent Munitions Systems* (IMS) does not currently exist, but production by the companies Allient Techsystems, General Dynamics and Textron Systems is being planned. [4] This is a weapons program that combines three different weapons systems, including the so-called "Antipersonnel Landmine-Alternative" (APL-A). It is, as a point of departure, designed not to fall within the definition of an antipersonnel landmine in Article 2 (1) of the Convention. The system consists of a number of explosive charges that may be detonated by an operator who has been alerted of the presence of a person (the victim) because of the person's contact with a sensor. This system is called "*man-in-the-loop",* which indicates that it is an operator and not the victim ("target") that activates the explosive charge. Production of this system is not planned until 2009 at the earliest.

Also the weapons system *Spider* is not yet in production. It is being developed by ATK and Textron Systems and is also being planned as a so-called APL-A system. Textron describes Spider as a *"suitable humanitarian alternative for anti-personnel landmines"* [5] The system will basically function in the same way as the APL-A part of IMS. Spider is planned for production in 2007.

A prototype of Spider was displayed at the arms exhibition, Defence Systems and Equipment International (DSEi), in London on Sept. 16th 2005. The Advisory Council's secretariat met a representative of Textron Systems to get more details about the system. The main element of Spider is a circular platform, approx. 40 cm in diameter and 10 cm tall. Six launch tubes pointing at an angle upwards and outwards are attached to the platform. The launch tubes can fire different types of ammunition. The range is approx. six meters. The weapons system is flexible in that several units can be combined to cover a larger area. Other types of explosives, such as sector mines, may also be attached.

From each Spider, six trip wires, each six meters long, can be extended. When a trip wire is touched, a wireless signal is transmitted to an operator that may me situated 1000 meters away (or further if relays are used). A display shows the operator which trip wire has been touched. The operator may then choose to detonate the ammunition. More advanced sensors, such as infra red cameras, motion detectors and ground radars may also be employed, but in its most basic configuration, Spider uses only trip wires.

---

[4] www.hrw.org/backgrounder/arms/arms0805/3.htm, www.gobalsecurity.org/military/systems/ground http://www.defenselink.mil/contracts/2003/c04162003_ct252-03.html

[5] www.systems.textron.com

Textron pointed out that the idea behind the development of Spider has been to develop a system that is "*Ottawa-compliant"*, i.e. in compliance with the Convention. When Spider was presented at DSEi, it was stressed that the ammunition must be discharged by an operator.

According to the producers, both these weapons systems will be produced with the "*man-in-the-loop"* feature, so that the ammunition is detonated by an operator and not by the victim. A weapons system that can *only* operate in this manner falls outside the definition of an antipersonnel landmine.

It is being argued, however, by sources such as Human Rights Watch (HRW), that these weapons systems could be quipped with a so-called "*battlefield override feature"* [6] This means that the weapons system may be activated by its victims, and not by an operator who is first alerted and then discharges the ammunition manually. According to HRW, the US Ministry of Defence (Pentagon) is interested in equipping the weapon with such a feature. A HRW report quotes a Pentagon report in which it is stated: "*Other operating modes allow Spider munitions to function autonomously without the man-in-the-loop control (i.e. target activation)…"* [7] On a direct question from the secretariat, the representative from Textron confirmed that such an override feature would, from a technical point of view, be uncomplicated to add. Further more, Textron confirmed that they will produce the system according to their client's specifications, and that this could also include the "battlefield override" feature.

There seems to be little doubt that if the Spider system and the APL-A part of the IMS system will be designed in such a manner that the ammunition may be victim activated, this would be inconsistent with the prohibition in the Convention. However, if the systems are constructed in such a manner that they only can be activated by an operator, this will not be the case. As of today, no decision has been made on whether, or with what specifications, these weapons systems will be produced. HRW states in its report that "*A decision whether to produce Spider will be taken in December 2005.."* Textron Systems has confirmed this to the Council. The Council has also learned from HRW that the organisation is lobbying the US Congress to prevent Pentagon from ordering Spider with the "battlefield override" feature. As mentioned in its report, HRW anticipates that, in December 2005, it will be decided whether there is a basis for starting production. According to the same report, a decision regarding production of IMS will probably be taken in 2008.

Despite the fact that the US is not a party to the Convention, there has for several years been a domestic political debate on the country's adaptation to its standards. In a report from the US House of Representatives from 2002 it is stated: "*The conferees direct that the Army clearly define the requirements for a next generation intelligent minefields and ensure compliance with the Ottawa Convention, and report back to the House and Senate Appropriations Committees with detailed plans for such a system"*[8] It thus seems reasonable to assume that any political decision taken with regard to Spider will also apply to IMS and other APL-A systems.

---

[6] http://hrw.org/backgrounder/arms/arms0805/3.htm

[7] http://hrw.org/backgrounder/arms/arms0805/3.htm page 2, footnote 36.

[8] US House of Representatives, Report 107-732, see footnote 36 in HRW report (www.hrw.org/backgrounder/arms/arms0805/3.htm)

**Conclusion**

The Advisory Council finds that all weapon systems that are designed in such a manner that explosive charges are detonated by the presence, proximity or contact of a person, will fall within the definition of an antipersonnel land mine as laid down in Article 2 of the Convention. This means that if the weapons systems in question are going to be equipped with "*battlefield override"* features, or in other ways designed to circumvent the "man-in-the-loop" feature, they will fall within the scope of the prohibition in the Convention.

Both production and *development* of antipersonnel mines is covered by the prohibition. The Advisory Council presumes that Spider and IMS, so far, have been developed as operator-activated systems. This *development* thus seems not to have been in violation of the Convention. The key issue is whether it will be decided that these weapons systems are to be modified in such a manner that they will be inconsistent with prohibition against antipersonnel mines.

If a decision is made to equip the weapons systems Spider or IMS with a "battlefield override" feature, or in other ways equip them in such a manner that they fall within the definition of an antipersonnel mine, the Advisory Council is going to recommend exclusion of Textron Systems.

This recommendation was given 20 September 2005 by the Advisory Council on Ethics for the Norwegian Government Petroleum Fund:

Gro Nystuen Andreas Føllesdal Anne-Lill Gade Ola Mestad Bjørn Østbø