

# STATES OF JERSEY



## **JERSEY AIRPORT: FIREGROUND REMEDIATION – DEED OF SETTLEMENT (P.176/2004) – COMMENTS**

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**Presented to the States on 18th January 2005  
by the Health and Social Services Committee**

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**STATES GREFFE**

## COMMENTS

### PFOS POLLUTION IN ST. OUEN'S BAY

#### Introduction

The details of a settlement negotiated with the manufacturer of the fire-fighting foams polluting St. Ouen's Bay beneath the Airport Fire Training Ground were presented at a meeting of States' members and senior officers held in the Société Jersiaise on 15th October 2004. The Acting Medical Officer of Health undertook to obtain independent toxicological advice so the Health and Social Services Committee could offer a health perspective on this settlement.

Whilst the run-off from the fire training ground contained a range of chemicals and products of combustion, the most significant to current debate is PFOS, the main constituent of the foam used at the time. Professor Virginia Murray, Director of the Chemical Accident and Poison Unit of the U.K. Health Protection Agency was invited to update the Committee on the toxicology of PFOS; the following is based on her research and opinion.

#### PFOS and Health

PFOS, perfluorooctane sulphonate, is a member of a family of chemicals developed in the 1940s that have been extensively used in paper and packaging manufacturing, photography, metal-plating, textile surface protection and aviation hydraulics as well as fire-fighting foams.

Reliable technology able to detect and measure PFOS has only recently been developed. Trace amounts have been found in practically every biological system on the planet. There will be measurable amounts in the tissues of everyone who reads this paper. It is now recognised as one of a range of *persistent organic pollutants* – “chemical substances that persist in the environment, bioaccumulate through the food web, and pose a risk of causing adverse effects to human health and the environment”. Its production ceased in 2001.

The nature and degree of any health risk that follows this wide distribution is far from clear. The evidence-base describing the biological behavior of PFOS and its related compounds is just developing. Some animal studies suggest toxicity at levels only 10 times routinely measured levels – ‘safety limits’ for chemicals are often set at one millionth of toxic levels. There are associations in animal and human studies with malignancy (cancer, notably of the bladder), poor fertility and birth defects – but these are not strongly substantiated and causal links remain unclear for the time being. We are not clear if there are any particularly susceptible populations – children and pregnant mothers are often vulnerable. We do not know if there are important interactions and synergistic effects with other chemicals in the environment.

Whilst there is a lot of uncertainty, there is enough real concern in the international scientific community to commission research to develop agreed methodologies for measuring PFOS, to set up epidemiological studies exploring the link between PFOS and health and to set environmental standards. PFOS is near the top of the lists of ‘suspect’ chemicals promoting this degree of interest. There are no standards or safety levels agreed for the U.K. or Europe.

#### The significance for Jersey

PFOS is a persistent organic pollutant. Residues will be found widely across the Island and in the tissues of Islanders. The significance to human health is unclear but current research suggests reason for concern. In addition to the human health issues, there may be reason for wider environmental concern.

These concerns are accentuated in St. Ouen's Bay where we know that run-off from the old Airport Fire Training Ground has raised levels of PFOS. It seems likely that these raised levels will continue for the foreseeable future.

It is undesirable that water from contaminated boreholes is used for human consumption. The list of commercial and residential properties within the plume of pollution should be updated and where bore-hole water is used for

human consumption, properties should be connected to the mains water supply. Where water is used for other purposes, the potential environmental and health significance of this should be investigated. The need for this exercise, which will need to continue for an unknown number of years, and any further remediation required, follows the use of PFOS at the Fire Training Ground. These future financial implications should have been taken into consideration as part of any financial settlement.

The science of PFOS and related chemicals is in its infancy. It is likely that within, say, 10 years, we will know far more about the health impact of this chemical on human health. Early pointers are that PFOS may have significant effects; it is certainly far too soon to say it is “safe”. This level of uncertainty makes it unwise for the States to assume that PFOS represents no threat to human health or to the environment when the Assembly considers this settlement.

## **Conclusions**

The toxicity of PFOS is not properly understood and consequently the long-term impact upon human health is unknown. The regulatory regimes of both the United Kingdom and the European Union do not reflect the purported “safe” level of exposure claimed by the manufacturer and the United States Environmental Protection Agency. If the Deed of Settlement between the Harbours and Airport Committee and the manufacturer is ratified, the States of Jersey will be forever surrendering any opportunity to take legal action against the manufacturer. Such a decision would bind the hands of future States assemblies. It is entirely feasible that future scientific knowledge may demonstrate PFOS to be of a greater human health hazard than is recognised today. If the manufacturer supplied a product that had the potential to be a threat to human health, without a clear warning to that effect, the manufacturer could conceivably carry greater culpability than appears to be the case today. That possibility might place a rather different complexion upon the legal aspects of the case. The manufacturer is a trans-national corporation with immense resources. It is therefore entirely unrealistic to imagine third parties, in the form of private individuals, mounting any serious legal action against the manufacturer. If the nature of the problem posed by PFOS proved to be greater at some future date than that recognised at present, there is only one entity in Jersey that could remotely mount a case for any recompense from the manufacturer – and that is the States of Jersey.

Scientific knowledge is presently uncertain in respect of the toxicity of PFOS and the likelihood is that that knowledge will develop significantly over the next 10 years or more. Future States assemblies should therefore have the ability to reconsider their options in respect of the possibility of legal action against the manufacturer. The Health and Social Services Committee cannot support the proposed Deed of Settlement.