



DEFENCE MUNITIONS

HAP AND OTTO FUEL ANALYSIS AT DEFENCE MUNITIONS BEITH

Annex A to Terms and Conditions DM/00170

STATEMENT OF WORK (SOW) SUBJECT TO CONTRACT

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1. INTRODUCTION

1.1. Defence Munitions (hereafter referred to as 'the Authority') requires routine analysis of sample(s) of Hydroxyl Ammonium Perchlorate (HAP) and OTTO Fuel II fuels used at Defence Munitions (DM) Beith.

2. SAMPLING

- 2.1. The Contractor shall undertake fuel sampling analysis on an ad-hoc basis following the receipt of a completed DEFFORM 300AC (Appendix 1 to Annex A) from the Authority.
- 2.2. Fuel samples will be packaged by DM Beith staff and are to be collected by the Contractor within 72 hours of recieving the DEFFORM 300AC. The Contractor shall contact the Authority via telephone to confirm the collection details, a minimum of 24 hours notice must be given.
- 2.3. On arrival at site, the Contractor will be met at the site gates by members of the Authority who will supply the Contractor with the relevant samples.
 - 2.3.1. Upon taking possession of the fuel samples, the responsibility for their care and condition transfers from the Authority to the Contractor.
- 2.4. To enable the sampling to occur when required the Contractor shall provide:
 - 2.4.1. Empty acid cleaned bottles / containers to support HAP sampling. These bottles / containers must be made from translucent Heavy Duty Polyethylene. They must be rigid and leak proof and have a non-stick natural polypropylene screw cap. The recommended size of the bottles / containers is to be 250ml.
 - 2.4.2. Empty non-acid cleaned bottles / containers to support OTTO Fuel II sampling.

 These bottles / containers must be made from translucent Heavy Duty Polyethylene.

 They must be regis and leak proof and have a non-stick natural polypropylene screw cap. The recommended size of the bottles / containers is to be 250 cm3.
 - 2.4.3. Suitable secondary containment to be provided for any subsequent storage and transport period. The packaging shall be labelled in accordance with the requirements of the appropriate transport legislation.
 - 2.4.4. Safe and secure private transportation must be provided for the collection of samples from DM Beith.
 - 2.4.4.1. HAP & OTTO samples must be transported in separate vehicles.
- 2.5. Fuel sample analysis is to be conducted against Hydroxyl Ammonium Perchlorate (HAP) to Specification 1SP4, SF0003 Issue 2 (Appendix 2 to Annex A)
- 2.6. Fuel sample analysis is to be conducted against OTTO Fuel II to Specification 1SP4, SF0004 Issue 4 (Appendix 3 to Annex A).

3. REPORTING

- 3.1. Following the fuel analysis the Contractor shall provide a report using the template provided (Appendix 4 to Annex A). The report shall detail the results detailed below. The report must be submitted as a word document to the Authority's Project Manager at DM Beith specified in DEFFORM 111 via email within twenty (20) working days of initial notification.
 - 3.1.1. Report detailing the analysis of Hydroxyl Ammonium Perchlorate (HAP) to Specification 1SP4 SF0003 Issue 2 must include the following results:
 - Chemical and Physical analysis of Assy (%)
 - Density (gcm3)
 - Phosphate (ppm)
 - pH
 - Sulphate ugg-1
 - Insoluble Matters (%)
 - Colour Hazen Units
 - Trace Metal determination of: Al, Ca, Co, Cr, Fe, Mg, Mo, Na, Ni
 - 3.1.2. Both analysis detection and specification range should be detailed against each sample taken.
 - 3.1.3. Report detailing the analysis OTTO Fuel II to specification 1SP4, SF0004 Issue 4 must include the following results:
 - PGDN
 - 2-NDPA
 - Water
 - Sodium
 - DBS
 - 3.1.4. Both analysis detection and specification range should be detailed against each sample taken.
- 3.2. Once a satisfactory report has been received, the Authority will confirm it's acceptance to the Contractor via email. The Authority shall provide a sample reference, confirm receipt and also provide a CP&F Purchase Order number.

4. DISPOSAL

- 4.1. The disposal of OTTO II fuel, HAP fuel and all contaminated material must be done in accordance with regulations made under the Control of Pollution Act 1974 and the Environmental Protection Act 1990.
 - 4.1.1. OTTO II fuel and HAP fuel is to be destroyed by incineration under controlled conditions by an authorised waste disposal Contractor.

- 4.1.2. Solid waste (sometimes called "dry waste") is an accumulation of paper tissues and rags which have been used to soak up spilled fuel or to clean quick disconnect connectors. These are also to be disposed of by incineration through an approved Contractor.
- 4.1.3. It is mandatory to contain all contaminated solid waste in large plastic bags. The contents are to be soaked with two litres of fresh water as an additional precaution. The bag is then sealed and placed within a second bag, which is in turn sealed and placed inside a polythene-lined 45 gallon steel, loose lidded drum and the drum lid replaced and secured.

