

# EI 1545 Recommended Practice for the defuelling of aircraft


IATA Fuel Forum  
November 2018



**John Thurston, World Fuel Services  
Chair EI Aviation Committee**

[www.energyinst.org](http://www.energyinst.org)

Follow us:  
 @EnergyInstitute

Join us:  
 Energy Institute

- EI was requested to prepare material on this topic by stakeholders, end 2016
- **Issues identified by EI Aviation Committee:**
  - Lack of dedicated equipment
  - Managing risk of equipment being contaminated by defuelled product – robustness of reinstatement for refuelling
  - Adequacy of training/competence
  - Implications for filter performance if biocide in defuelled product
  - Paucity of existing information

## EI 1545

**Recommended practice  
for the defuelling of  
aircraft**

**In development  
Due 2019**

- **Issues identified by airlines via IATA Fuel Forum's (Hanoi 11/16, St Petersburg 05/17):**
  - Need for defuelling capability
  - Differences in equipment availability – aircraft maintenance hubs vs elsewhere
  - Risk of a defuelling operation leading to airport supply disruption (e.g. sites with one refueller)
  - Need for rapid assessment of MBG
  - Benefit in bringing all relevant guidance into one reference

**EI 1545**

**Recommended practice  
for the defuelling of  
aircraft**

**In development  
Due 2019**

- **Held 3 stakeholder workshops (c100 participants)**
  - N. America - Denver, 28 Sept 2017
  - Europe - London, 5 Oct 2017
  - Middle East - Dubai, 30 Oct 2017



## **1 General**

- 1.1 Purpose
- 1.2 Reasons for a defuelling recommended practice and defined procedure
- 1.3 Defuelling definitions

## **2 Procedures**

- 2.1 Summary
- 2.2 Grade confirmation
- 2.3 Quality Assurance Checks – sampling and field checks
- 2.4 Fuel Grade Testing – interpretation of data and suitability for use
- 2.5 Gravity Defuelling procedure and precautions
- 2.6 Aircraft assisted defuelling procedure and precautions
- 2.7 Defuelling in hangars procedure and precautions

- 2.8 Defuelling with passengers on board procedure and precautions
- 2.9 Overwing defuelling
- 2.10 Defuelling rotary aircraft
- 2.11 Defuelling procedures/training
- 2.12 Tankering defueling
- 2.13 Methods of fuel disposal

## **3 Defuelling equipment**

- 3.1 Defuelling equipment design requirements
- 3.2 Examples of defueling equipment

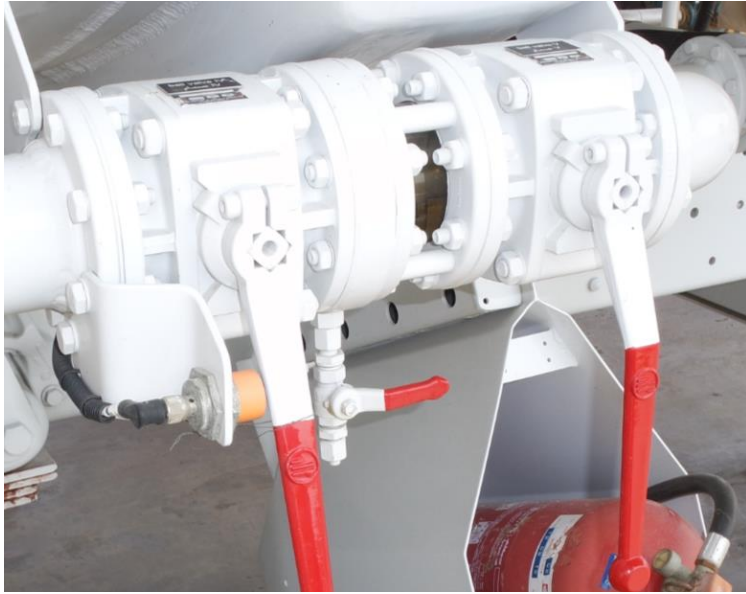
**Annex A - Example defuel form and defuel log**

**Annex B - Microbiological testing**

**Annex C - Task breakdown sheet**

**Annex D - References**

# EI 1545 – example equipment design requirements



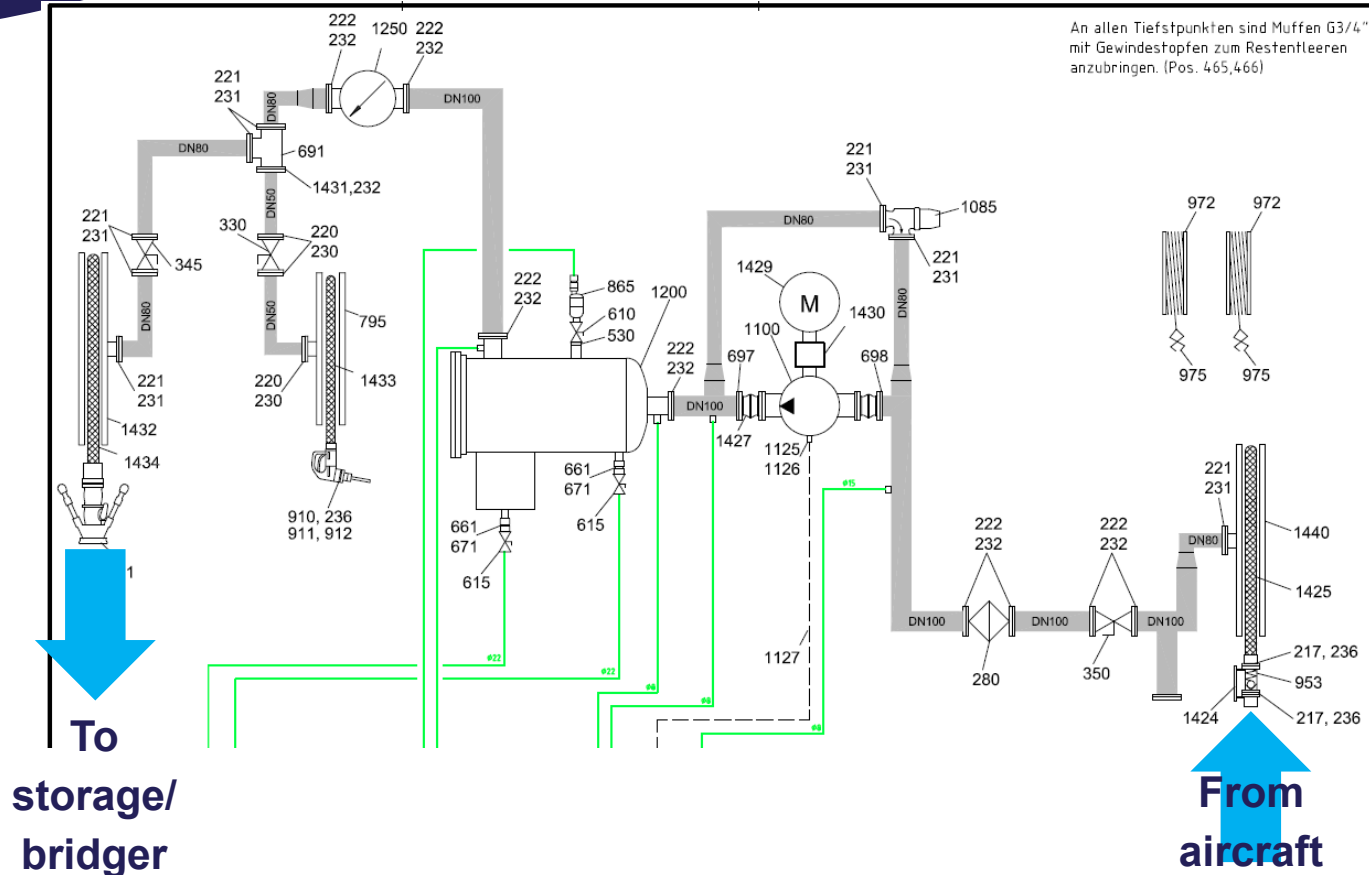
**Fueller for defuel service - Where the defuel circuit includes a double valve arrangement (vehicle designs pre-2014), the section of pipe between the valves shall have a low point drain and this shall be checked daily for leakage and flushed each 6 months.**





# EI 1545 – example equipment design requirements

**Example of a defuel pumping unit - for defuelling in aircraft servicing facilities and transferring defueled product into dedicated storage tanks or bridgers (can be fitted with electric pump drive; filter is optional)**





- **Team working with a drafting contractor to prepare draft for stakeholder review – target end 1Q 2019**
- **Several iterations may be required to build consensus to ensure content meets the needs of airlines, into-plane operators, fuel suppliers and vehicle/equipment manufacturers – further engagement workshops possible**
- **Desire to complete publication by year end 2019**

**EI 1545**

**Recommended practice  
for the defuelling of  
aircraft**

**In development  
Due 2019**