ENG3-10.7

Formerly ENG2-11.2.7

**Sub Working Group**: Buoys and moorings

**Task Register Reference**

2.1.1 Develop further guidance on plastic buoys, systems & sensors

**Summary**

During the review of “Task 2.1.1 Develop further guidance on plastic buoys, systems & sensors” the group checked and discussed the contents of the 1006 guideline (plastic buoys) and the contents of the 1066 guideline (moorings).

**Activities**

Develop a new guideline for buoys. The existing guideline 1006 (plastic buoys) with be updated and integrated into a new guideline on buoy structures. The new guideline will also contain information on steel buoys, painting, buoy equipment and maintenance.

1. **A chapter will incorporate the existing Guideline 1006 plastic buoys with updates**

# INTRODUCTION

# BACKGROUND

## Points to be considered when evaluating plastic buoys

# Construction

## Environment conditions

### Hints for buoys in ice conditions

### Rivers

### Hot climate

## Multi colour possibilities

## Filling

## Steel parts

### Mechanical attachments

### Mooring eye

### Lifting eye

### Other steel parts

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# POLYETHYLENE

## General

## Polyethylene material specifications

### stability

### aging

### colour

#### colour in new condition

#### colour aging

#### long term storage of plastic buoys

# daymark identification

## Position name/numbers

## Retroreflective material

# Quality Control

## Testing procedures

## Colour

## Wall thickness

## Welding techniques

## Water tightness / sealing

## Identification (owner/manufacturer/year/batch/etc/RFID?)

## Monitoring the quality of repairs

# planned Maintenance

# Repair

# Technical equipment

# Handling

# Recycling / Disposal

# Health and Safety

**Annex: Examples for different sizes (small to large, commonly used wall thicknesses, radar reflection, etc.)**

1. **Guideline 1066: The Design of Floating Aid to Navigation Moorings**

The group checked the contents of the guideline 1066 and found out that the existing version is complete, no actual changes are required. Later on the chapters concerning steel specifications will be expanded to emphasize the importance of using one material for all mooring components. Furthermore it is important to measure and keep records of chain wear.

ENG members are requested to review the document and comment where necessary.

1. **Further work**

* ENG members are requested to provide input on radar reflectors.
* ENG members are requested to provide input on polyethylene materials

**Activity Schedule and Timeline**

The complete task should be finished in session ENG6.

**Recommendation**

The task “2.1.1 Develop further guidance on plastic buoys, systems & sensors” should be expanded according to the “proposed structure for buoy related guidelines” in the ENG2.11.2.6 paper.

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