



Environmental Sustainability Bulletin 03/20

March 2020

These bulletins summarise key ideas and solutions to environmental and sustainability matters, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by IMCA members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of these bulletins depends on receiving reports from members in order to pass on information and continue to present innovative solutions. Please consider adding the IMCA secretariat (sustainability@imca-int.com) to your internal distribution list for similar internal reports and/or manually submitting information on specific solutions that you consider may be relevant. All information can be anonymised or sanitised, as appropriate.

A number of other organisations issue environmental sustainability updates and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links. Additional links should be submitted to sustainability@imca-int.com.

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Oil/Chemical Mapping and Spill Risk Assessment in Saipem's Fleet

What was done

Saipem has performed spill risk assessments for all its construction vessels. Through a rigorous and consistent method, the assessments assign a risk level for all equipment on-board in order to evaluate the risk and to provide an order of priority for the implementation of mitigation measures.

There were three steps to the process:

1. Mapping all the equipment capable of generating spills or otherwise releasing substances hazardous to the environment;
2. Assessing the risk by evaluating the following:
 - the probability of a spill or release;
 - the magnitude of the consequences for the environment of that spill or release;
3. Implementing prevention and mitigation measures.

A software tool (on MS Excel) was created containing all the information required for each piece of equipment assessed. This included:

- ◆ Item name and location;
- ◆ Name and type of the substance – oil or chemical – that might be spilt or released;
- ◆ Quantity of the oil/chemical that might be spilt;
- ◆ Pressure at which the substance is held or stored;
- ◆ Is the storage or the equipment subject to weather;
- ◆ Is the storage or the equipment at risk from damage by impact?
- ◆ What are the barriers put in place?
- ◆ Have there been leakages in the past?
- ◆ Is the equipment present in the maintenance register?
- ◆ Expected spill response time.

Results, Observations, Conclusions

After alignment of documents between vessels, a spill risk assessment takes place with a methodology that takes into consideration all the information outlined above. The output of this spill risk assessment identifies any criticalities in one or more items on-board of every vessel. The spill risk assessment can then be used to better evaluate the quantity and the location of the spill response equipment (spill kits, vacuum etc). Saipem has completed this mapping exercise and the spill risk assessment for its entire offshore construction fleet. The next step will be to share the results with the VMT and start the implementation of risk reduction measures where applicable.