

# Ship ballasts and quality of water bodies in ports

Julio DE LA CUEVA on behalf of Las Palmas Port Authority  
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# Room for improvement/failures detected during exercise

- Planning operations: need for more flexibility
- Duration of operation
  - It is constrained by possible compatible operations; only unloading of cargo coincided thus other possible compatible operations shall be tested to complete the exercise
  - It is dependent on (sufficient) storage capacity ... that was not the case in Las Palmas
- Connector between ship and BWUnit need to be standardized, this is crucial!
- Safety
  - Area needed including safety distances is to be established in advance for BWUnit, storage tank, taking of samples support vehicles, etc. ... need to work on this issue
  - Hose line should be tested before start off operations in case an obstruction is detected
  - Length and disposition of hose line shall be estimated in advance as it is relevant for rest of equipment distribution on the quay side for eventual safety reasons
  - Volume to be de-ballast and time allocated for operation determine water flow rate thus hose diameter and finally the need to use a crane to handle the hose (Nb. > 6" it is nec.)

# Room for improvement/failures detected during exercise (cont)

- Technology requirements,
  - BWUnit needs to be cleaned with *citric acid* before using, therefore 3 small containers/cubes of 1 m<sup>3</sup> with fresh water and additives are to be on-site in advance
  - Number of services and time between them must be estimated to clarify actual availability and to conclude on productivity of this new service
- Quality of ballast water
  - Taking of samples before and after treatment was not possible from the inside of BWUnit; adaptation of hoses took place in Las Palmas to accommodate this crucial task of proving well functioning and access to PSCO to the taking of samples
  - In total, 3 people operate the BWUnit, another 2 people drove auxiliary equipment and another 3 persons intervened in taking of samples, thus attention should be paid to coordination
  - No less than 16 hours lasted the tests at laboratory on microbiology (Nb. Week-end not considered)
- Logistics
  - On shore power supply would be needed for the ship or the BWUnit on the quay ... it has implications (space, noise, ...)
  - Area for storage tank to receive BW shall be accommodate with control access to only authorized people
  - Many of these encountered problems are related to mobility condition required to the BWUnit ... obviously would no appear if the service is provided at a fix position in port

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