



KISH P & I LOSS PREVENTION CIRCULAR KPI-LP-22-2012 ***(Hints on Avoiding Bunker Claims)***

Claims concerning fuel quantity and quality disputes are quite difficult to resolve and a satisfactory outcome will rely greatly on evidence provided by various parties concerned. Detailed and correct documentation is vital. The following steps should be followed by the shipboard and company concerned staff to help prevent problems and provide essential evidence if a claim arises.

► The Quantity of Bunkers:

Quantity claims usually arise at the time of delivery and can be minimised if correct procedures are followed. The following checks and records must be made at the time of the delivery.

It is important to bear in mind that if a shortage is not identified and the correct actions not taken at the time of delivery it would become almost impossible to recover any losses after the event.

1-Pre-delivery checks:

- Always try to segregate new bunkers from pre-existing fuel. Loading into empty tanks will avoid incompatibility problems, make measurements easier, reduce the chance of spills and, if the new fuel has a quality defect, it will not contaminate other fuel.
- Before the delivery measure all ship's bunker tanks and record soundings or ullages and temperatures. Convert linear measurements to volumes using the tank calibration tables and take into account vessel trim and list. Use densities and correct petroleum tables to convert observed volumes to volumes at standard temperature and weight factor to determine metric tonnes. *Record all your findings.*
- Prepare a bunker loading plan comprising all tank measurements before the delivery and expected tank contents on completion of taking bunkers.
- Check that the bunker delivery note shows the type of fuel and quantity intended for delivery is according to that expected. Do not sign the bunker delivery note or sample labels before the delivery.
- Attend on the barge in the company of the barge master to measure and record the contents of all the cargo tanks, including any not designated for your delivery. Take the temperatures of the fuel in all the tanks. Look for any signs of foam on the surface of the fuel or excessive bubbles on the sounding tape. This may indicate that air has been blown into the fuel. This is sometimes referred to as "Cappuccino Fuel".

Measurements under these conditions, tend to overstate the volume in the tanks. If excessive foaming is observed issue a letter of protest and consider calling an independent surveyor to evaluate the situation. Once the bunker transfer is under way it becomes impossible to resolve this issue.

- Check the barge calibration tables have an official certification stamp. If not, issue a letter of protest. Again, if you are not convinced that the tables are correct consider calling an independent surveyor.
- Use the barge calibration tables to convert linear measurements to volumes at observed temperature, taking into account any trim or list of the barge.
- Ensure that the barge master signs your record of barge tank contents and temperatures.
- Agree with the barge master that stripping of barge tanks will only be carried out at the end of the delivery as this process can introduce excessive air into the fuel and make measurements unreliable.
- Agree with the barge master that air-blowing of line content will only be carried out at the instructions of the chief engineer at the end of the delivery as this process can also introduce excessive air into the fuel and make measurements unreliable and also prevent spill/over-flow.



- Agree with the barge master where and how his delivery samples will be taken. Ideally this should be by continuous drip at the ship's receiving manifold, however, continuous drip at the barge discharge manifold should also be acceptable providing the process can be observed by a member of the ship's crew.

If the barge master does not intend to take reliable continuous drip samples then issue a letter of protest and inform him that you will take delivery of samples he may issue later but you will record that they were not taken properly.

- If you are not content with the barge sampling procedure then ensure that you take a continuous drip sample at the ship's receiving manifold and invite the barge master to witness this process and sub division and labelling of samples on completion of the delivery.

- Carry out all pre-delivery checks and complete standard forms in accordance with the ship's management system and local regulations.

2-Checks during the delivery:

- Ensure continuous drip sampling is performed throughout the entire delivery. Do not stop the drip sampling until the barge master has confirmed that the transfer has been completed.

- Make sure the fuel being loaded is entering the tanks that you nominated and no fuel is passing to a non nominated tank. Top off tanks carefully to avoid over filling and spills.

- Listen for unusual noises from the barge, or excessive movement of the delivery hose as this may indicate stripping or air being introduced into the fuel by the barge operators. If in doubt attend on the barge to investigate and record any problems and issue a letter of protest if necessary.

3-Checks on completion of delivery:

- Measure and calculate the quantity of fuel on board, by checking all ship's tanks and record your findings. Then subtract your starting quantity from your finishing quantity (whilst taking into account any consumption during delivery).

This will provide the total quantity received.

In order calculate the volume at standard temperature and weight of fuel supplied you will need the density of the fuel and this is usually provided on the bunker delivery receipt but remember that the true density can only be established by testing a drip sample.

- Attend on the barge and measure the contents and temperatures of all barge tanks together with the barge master and record your findings and ask him to agree and sign the record.

- Calculate the barge outturn and compare this against your ship received quantity. There may be a difference of a few tonnes due to measurement error and tank calibrations.

- If you are satisfied that the quantity provided on the bunker delivery receipt has been delivered and received into your tanks (allowing for a minor discrepancy) then sign the bunker receipt *for observed volume at temperature only*.

- If you are not satisfied that you have received the quantity on the bunker delivery receipt then issue a letter of protest and if the apparent shortage is large (more than 10 tonnes on a large delivery) then you may consider appointing an independent surveyor to check the barge and your tanks.

- If a dispute results in the barge master agreeing to pump some more fuel to the ship make sure the drip sampling is continued throughout this period as well.

- Make sure the bulk drip sample is thoroughly mixed before and during filling of sub sample bottles. Ensure this process is witnessed by the barge master.



- Label and seal the sub samples and obtain the signature of the barge master on all the sub samples.
- Do not sign labels of any samples issued by the supplier unless you are satisfied that they were taken and sub divided properly.
- Check that the bunker receipt only lists the seal numbers of samples that were taken properly by continuous drip. If the supplier insists on recording seal numbers on the bunker receipt for samples that were not properly taken and witnessed then issue a further letter of protest.
- Ensure you retain all records of measurements, sample data, letters of protest on file and inform your head office of any problems as soon as possible in writing.
- Complete a final tank measurement and calculation report and enter the records of tank contents before and after loading in the oil record book and engine log book.

► **The Quality of Bunkers:**

The fuel supplied to your ship should have been ordered on the basis that it will be compliant with the International Standard, ISO:8217 and be suitable for consumption with respect to environmental regulations applicable within the intended trading route of the ship. However production and distribution errors can result in supply of non-compliant fuel and this is unlikely to be obvious at the time of delivery. Owners should ensure that all fuels are sampled and tested to check compliance. The following checks should be made.

1-Before the delivery:

- Agree with the barge master where and how his delivery samples will be taken. (as stated earlier in this circular , Ideally this should be by continuous drip at the ship's receiving manifold, however, continuous drip at the barge discharge manifold should also be acceptable providing the process can be observed by a member of the ship's crew. If the barge master does not intend to take reliable continuous drip samples then issue a letter of protest and inform him that you will take delivery of samples he may issue later but you will record that they were not taken properly.)
- Check the drip sampling device is fully operational and clean and fit a clean collection bag.
- Always try to segregate new bunkers from pre-existing fuel. Loading into empty tanks will avoid incompatibility problems, make measurements easier, reduce the chance of spills and if the new fuel has a quality defect it will not contaminate other fuel. Also you should be able to consume previous fuel during the period you are waiting on test results for the new fuel.

2-During the delivery:

- Ensure that a continuous drip sample is obtained throughout the entire delivery. This should be approximately 5 litres.

3-On completion of the delivery:

- Fully mix the bulk drip sample. If the fuel is cold then warm it in the engine room to make sure it can be properly shaken and mixed. The barge master should be invited to witness sample preparations.
- Fill at least four 1 litre sample bottles, adding fuel to each bottle a little at a time and making multi-passes over the bottles. The bulk sample container should be mixed or shaken several times during this process.
- Label and seal all the samples. Make sure the following is recorded on the labels:
Ship's name, port, barge name, date, type of fuel (HFO/MDO), sampling method, sampling location, seal number.

The chief engineer and barge master must sign the labels.



- Make a list of the samples and their seal numbers with remarks on how they were distributed e.g. Ship retained, barge retained, test laboratory. One sample should be issued to the barge and a signed receipt should be obtained.

- Check that the bunker delivery receipt records all the seal numbers and distribution.

- If the barge master issues samples that were not taken under agreed witness conditions then sign for "*receipt only – source unknown*". A letter of protest should also be issued.

Marpol Required sample:

It is the duty of the supplier to issue the ship with a Marpol sample and the seal number of this should be recorded on the bunker receipt. If the barge master and ship's crew agreed on taking only one set of samples, either at the barge manifold or ship manifold then one of these may be designated the Marpol sample.

A ship taken sample cannot be termed a Marpol sample unless this is agreed with the barge master and the seal number is recorded on the bunker receipt. If the bunker receipt lists any seal numbers of samples that were not taken by the correct method then issue a letter of protest. There cannot be two Marpol samples for one delivery.

- One delivery sample should be sent for testing. This is best arranged through a routine bunker testing service as this would provide a fast turnaround of results.

- If possible do not use the new fuel until you have received the test results.

- Check the laboratory test report and take into account any recommendations given by the laboratory such as heating and use of purifiers. Record in the engine log book the use of purifiers and fuel temperatures.

- Always record, in the engine log book, every day the primary bunker tank being used for transfer to the settling tank.

- If you experience problems with fuel treatment or engine performance then ensure that appropriate entries are made in the engine log book.

- If you suspect that the new fuel has some quality defect, due to filter, purifier or engine problems then take samples before and after the purifier and before the engine, after the fine filters.

Take great care with sampling hot fuel oil. Label and seal the samples and ensure the labels contain all relevant information on when, where and how the samples were taken. Send them to the laboratory as soon as possible.

- If the purifiers or filters are blocking, then obtain samples of the sludge for testing.

- Take photographs of purifiers and filters to demonstrate the problem.

- If engine components sustain damage then preserve the damaged parts as evidence.

- Keep your head office fully informed of problems as they will need to communicate with the charterer and or fuel supplier and arrange for attendance of a surveyor.