BULK OIL SHORTAGE RISKS & QUALITY DISPUTES

A three day introduction to Bulk Oil Shortage Risks and Quality Disputes

DAY ONE

09.15 - 09.30	**INTRODUCTION** Outline of course and objectives. Outline of the Case study	**JW**
09.30 - 10.15	**THE CHEMISTRY OF CRUDE OIL AND CRUDE ASSAYS** A review of the origin and composition of crude oils and their impact on quality. The quality and yields of refined crude petroleum products based upon Crude Assays. A simplistic review of the chemistry of the different components found in Crude Oil.	**NW**
10.15 – 11.00	**OIL MEASUREMENT AND SAMPLING** Inspection companies; who are they; who employs them and why	
11:00 -11:15	**COFFEE**	
11:15 – 12:00	**THE ROLE OF THE CARGO INSPECTOR** The need and the importance of correct sampling; different methods of sampling; typical errors.	**AA**
12:00 – 12:45	**LUNCH**	
13:00 – 16:30	**SHORE STORAGE TERMINAL**	**JW**
	– VISIT TO VOPAK, BARRY ISLAND	
16:30	**RETURN TO CARDIFF**	

DAY TWO

09.15 - 10.00	**THE PRODUCTION AND REFINING OF CRUDE OIL** The principle of distillation and conversion processes.	**NW**
10:00 – 10:45	**OIL QUANTITY CALCULATIONS** How crude oil and products are traded; principles of bulk oil measurement and the different systems in use. Examples of paper losses attributable to inconsistent measurements, the argument in favour of volumetric expression.	
10:45 – 11:00	**COFFEE**	
11:00 – 11:45	**COMMON CAUSES OF QUALITY DISPUTES** A review of the common causes of quality disputes, do they exist and how they can be overcome. This section includes case studies that reflect actual quality disputes that have occurred.	
11:45 – 12:30	**MITIGATION OF QUALITY PROBLEMS** A review of some remedial treatments that can minimise losses	**RM**
12:30 – 13:15	**LUNCH**	
13:15 – 15:00	**LABORATORY EXERCISE (I)** Demonstration of selected tests relating to product quality; the significance of measurements tolerances: Gas Oil testing; illustrations of variations in results.	**NW**
15:00 – 15:15	**TEA**	
15:15 – 16:45	**LABORATORY EXERCISE (II)** Demonstration of selected tests relating to product quality; the significance of measurement tolerances: Fuel oil Testing with results to be used in forensic investigations.	**NW**

DAY THREE

09:15 – 09:45 **FORENSIC INVESTIGATION QUALITY DISPUTES/SUMMARY OF CASE STUDY**

General procedures adopted in a forensic investigation.
The purpose of analytical investigation and procedures used:
Is the cargo contaminated? What is the contaminant?
How and when did it occur? Who is responsible?

09:45 – 10:30 ***INTRODUCTION TO BIO FUELS***

FAME; Bio Diesels; what are they; blending; associated problems

10:30 – 10:45 **COFFEE**

10:45 – 11:30 **LOSS INVESTIGATION**

Case study considering all the facets of the shipment of a typical crude oil cargo including paper and physical losses arising from tank measurements on board and on shore, incompatible measurements, cargo theft, etc.

11:30 – 12:30 **TANKERS AND THEIR OPERATIONAL PROCEDURES**

Description of various Tanker types and their design features; review of cargo operations . When things go wrong!

12:30 – 13:15 **LUNCH**

13.15 – 14.15 **SURVEY DOCUMENTATION AND INTERPRETATION OF DATA**

Review of typical load and discharge survey reports; definition of terms and their application; establishing where a loss has occurred. Examples of cargo theft.

14:15 – 15:00 **REVIEW OF SHORTAGE AND CONTAMINATION CLAIMS**

The application of insurance conditions in the light of technical aspects revealed by the Course; comparison of insurance clause. Guaranteed outturn. Case studies on mitigation scenarios.

15.00 – 15.30 **TEA – OPEN FORUM and COURSE ASSESSMENT**

15.30 **CLOSE**