

AN INTRODUCTION TO LNG BUNKERING		
08:30	Course Registration and Welcome Coffee Break	
09:00	Introduction/Administration Course Director: Nigel Draffin, Consultant, Lecturer and Author. IBIA Board Member.	
09:15	Why use gas as a fuel?	
09:35	What is methane?	How is it sorted     LNG to Methane
10:05	How is it burned?	<ul> <li>Fuel systems</li> <li>Gas engines</li> <li>Low pressure injection DF</li> <li>High pressure injection DF</li> </ul>
10:50	Networking Coffee Break	
11:05	Gas Laws	<ul> <li>Pressure vs Temperature</li> <li>Latent Heat</li> <li>Cold vs Hot LNG</li> </ul>
11:30	Boil off Gas	<ul><li>Managing Storage Pressures</li><li>Dealing with Boil Off</li></ul>
11:55	Regulations	<ul><li>SOLAS, IGC and IGF Codes</li><li>Ex Equipment</li></ul>
12:20	Safe Zones	<ul><li>Safe Zones for Operation</li><li>Safe Zones on Board</li></ul>
12:45	Safety Risks	<ul> <li>Temperature, Fire and Explosion</li> <li>Roll Over and RPT</li> <li>Nitrogen</li> </ul>
13:10	Networking Lunch	
13:50	Procedures, Process Flow, Isolation and Bonding	Including video
14:45	Fire Fighting	<ul><li>Inerting</li><li>Vapour Risks</li><li>Fire Fighting Systems</li></ul>
15:10	Measurement	<ul><li>Volume</li><li>Mass</li><li>Analysis</li></ul>
15:30	ESD System	<ul><li>ESD</li><li>ERS</li><li>Testing</li></ul>
16:00	Networking Coffee Break	
15:10	Personnel Safety	<ul><li>Gas Monitoring</li><li>Tank Entry</li><li>PPE</li></ul>
16:45	IGF Code	
17:00	Tank Protection	Over Pressure    Over Filling
17:15	Technical Developments	<ul> <li>Gas Injection Control</li> <li>Engine Safety</li> <li>Maintaining Propulsion</li> </ul>
17:35	Certificates and Close	