



LNG BUNKERING OPERATIONS THE PORT OF LA SPEZIA EXPERIENCE

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Naples shipping week. GNL Infrastructures and logistics.
Naples, October 2Nd 2020



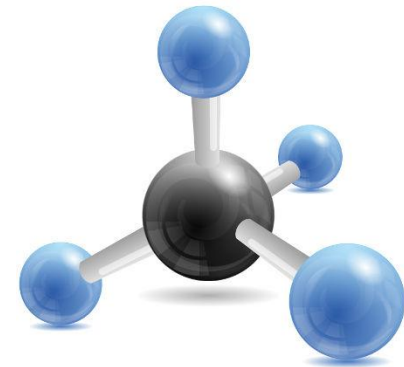
Introduction



It was almost a century ago when shipping had transformed from coal fuelled to oil fuelled



Nowadays, a new choice is coming for the maritime industry and it is LNG
Driven by strict safety and environmental standards, LNG is being termed as the fuel of the future





Introduction



Different stakeholders in the LNG industry should cooperate in forming the LNG hub, and it's what the La Spezia Harbour Master did, under the supervision and coordination of Genoa Direzione Marittima, in the last two years



Introduction



STEP 1 - Ordinance 219/2019 on October 11st 2020, ruling the mooring conditions of LNG propelled passenger ships in the port of La Spezia

STEP 2 - LNG bunkering operations in port. They imposed the adoption of adequate regulations and procedures, to guarantee the highest safety and security conditions, jointly with the preservation of natural environment



RULES



Methodology



- ✓ Setting up of a specialized working group
- ✓ Brainstorming
- ✓ Road map and deadlines



LNG Bunkering Regulation



Allowed operations, having regard to the port's peculiarities: S.T.S.



Identification of port facilities for LNG fuelling operations



Authorized LNG suppliers





LNG Bunkering Regulation



Risk assessment:

- ✓ barge preparation
- ✓ preparation, testing and connection of equipment
- ✓ LNG transfer and boil-off management
- ✓ completion of refueling and equipment disconnection operations
- ✓ SIMOPS

Risk assessment's results to be submitted, for review, to a R.O. by the Italian Administration



LNG Bunkering Regulation



Risk assessment must identify the hazardous areas, the safety and security areas. As a precaution, the safety area cannot be less than 25 meters



SIMOPS - Allowed, conditioned and forbidden simultaneous operations



Identification of the persons in charge of LNG operations (P.I.R.)





LNG Bunkering Regulation



Conditions

- ✓ Restriction on bunkering time (daylight)
- ✓ Weather conditions and forecasts
- ✓ Ship traffic restrictions



Precautions within hazardous, safety and security areas and redundancy of communications equipment



Double jacketed LNG hoses

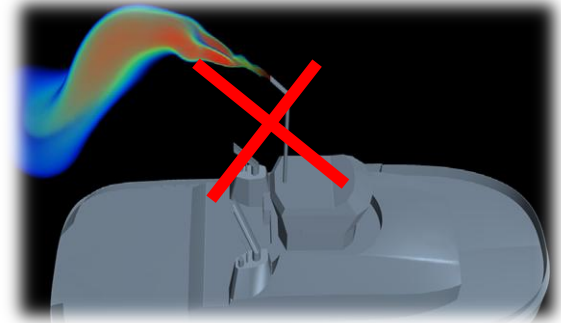




LNG Bunkering Regulation



Boil off management systems



PPE, Crew preparedness and implementation of ships' ISM procedures



Mooring of empty barges in port





STEP 3



Rules for LNG powered ships in dockyard





Question time

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