



## One Day Workshop

### Materials Handling Workshop

Presented by TUNRA Bulk Solids for Industry

The storage, handling and transportation of bulk solid materials are major activities for a vast number and variety of industries throughout the world. Efficient bulk solids handling operations are of vital importance in the supply chain. This becomes even more evident in ports, where the larger throughputs and number of materials often present unique challenges. From environmental and safety concerns such as dust emissions, risk of liquefaction, self-heating or explosions, to unplanned maintenance stops potentially leading to excessive demurrage costs, appropriate design of bulk handling equipment is the key to ensure operational efficiency.

Considerable advances continue to be made in research, development, application and implementation of the technologies associated with various aspects of bulk solids handling. TUNRA Bulk Solids is proud to share some of its learnings on materials characterisation and behaviour as well as highly specialised engineering analyses that have led to the successful completion of a number of projects for ports in Australia and overseas.

TUNRA Bulk Solids are pleased to present a one-day workshop which will provide delegates with an overview of current state-of-the-art materials handling techniques and their application to ports.

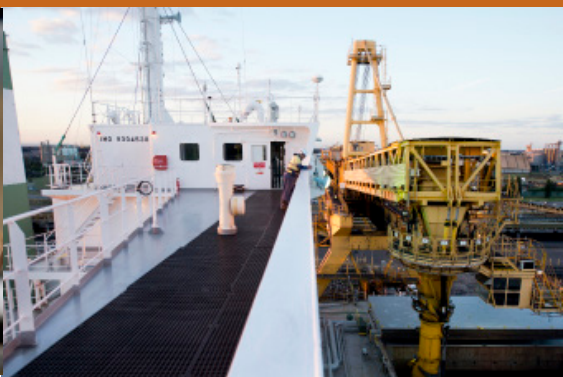
### Topics Covered

- ▶ Flow Property Testing and Understanding of Material Behaviour Under Varying Conditions
- ▶ Safe Handling of Bulk Cargoes: Transportable Moisture Limit and Self-heating
- ▶ Dust Minimisation through Effective Design
- ▶ Transfer Chute Design Principles for Problem-free Operations

### Why attend

- ▶ Diversify your expertise and further knowledge of materials handling concepts
- ▶ Increase awareness of material behaviour on site
- ▶ Learn methods for troubleshooting, optimisation and best practice design
- ▶ Stay up to date with the latest developments in industry and bulk solids research

**Presented online - Tuesday 7th December from 8:30 am to 4:30 pm AEDT**





## One Day Workshop Overview

- ▶ 8:30 am Registration and Housekeeping  
PRISCILLA FREIRE  
Business Development Engineer
- ▶ 8:45 am Overview of TUNRA Bulk Solids  
DR TIM DONOHUE  
General Manager TUNRA
- ▶ 9:00 am Keynote Presentation  
DR DINGENA SCHOTT  
ASSOCIATE PROFESSOR DEPT. OF MARITIME AND TRANSPORT  
TECHNOLOGY, DELFT UNIVERSITY OF TECHNOLOGY
- ▶ 10:00 am Coffee and Morning Tea Break
- ▶ 10:15 am Bulk Solids Flow Properties Characterisation and Applications  
DR JAYNE O'SHEA  
Consulting Engineer
- ▶ 11:15 am Dust Minimisation through Effective Design  
DR DAVE BRADNEY  
Consulting Engineer
- ▶ 12:15 pm Lunch
- ▶ 12:45 pm Safe Handling of Bulk Cargoes: Transportable Moisture Limit and Self-heating  
SHAUN REID and DR PETER ROBINSON  
Consulting Engineer and Research Associate CBSPT
- ▶ 2:15 pm Coffee and Afternoon Tea Break
- ▶ 2:30 pm Transfer Chute Design Principles for Problem-Free Operations  
DR JENS PLINKE and DR TIM DONOHUE  
Consulting Engineer and General Manager TUNRA
- ▶ 3:30 pm Ports Case Study  
DR JENS PLINKE and DR BIN CHEN  
Consulting Engineer and Engineering Manager
- ▶ 4:30 pm Closing Remarks and Discussion

The day will include time for questions after each technical presentation as well as opportunities for delegates to discuss and troubleshoot issues with industry experts.

### Who should attend

This workshop will be of particular interest to:

- ▶ Engineering and maintenance professionals in ports
- ▶ Port operators
- ▶ Engineering companies who work on port design projects



### Why TUNRA Bulk Solids?

#### Experience and Expertise

We have provided expert solutions to industry for over 45 years and are the leading organisation for materials handling research and consulting in Australia and internationally

#### Research and Development

We have a proven track record in research and development through the close association with The University of Newcastle

#### Quality Service

We have highly qualified, well-trained and specialist staff that are committed to delivering excellence

#### First Class Facilities

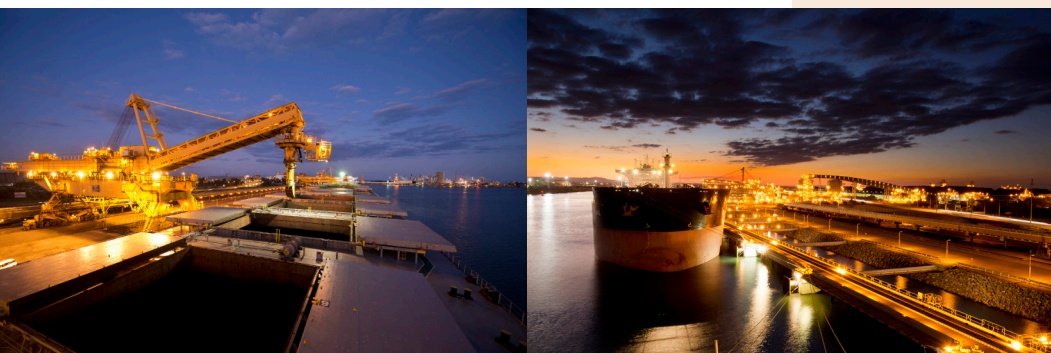
Our laboratory is a state of the art facility located within the Newcastle Institute of Energy and Resources (NIER) at The University of Newcastle

#### Industry Standards

We are accredited to ISO 9001, ISO 45001 and ISO14001

#### Independent

We are independent and not for profit



For further information regarding the one day workshop

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