

VITAL ENERGY LINK OF NORTH EAST ASIA

NIIGATA LOADING ARM FOR OIL & GAS TRANSFER

The 10th Japan-Russia Energy and Environment Dialogue in Niigata
14th November 2017 – Toki Messe, Niigata

TOKYO BOEKI ENGINEERING LTD.

(FORMER NAME: NIIGATA ENGINEERING CO., LTD.)

Tokyo Beki Engineering Ltd. Company Profile

- ◆ *Head Quarter* : Tokyo, Japan
- ◆ *Factory* : Nagaoka, Niigata, Japan
- ◆ *Employee* : 200 (as of April 2017)
- ◆ *Main Product* : **LOADING ARM (OIL & GAS)**
Swivel Joint
Butterfly Valve

LOADING ARM SYSTEM

g Arm will meet all requirements for Oil and Gas handling

**TOTAL QUALITY...
WE MAKE ALL OF
THEM!**

Position Monitoring System (PMS)

Emergency Release System (ERS)

Cryogenic Butterfly Valve

Hydraulic Quick Coupler (H-QCQC)

Radio Control System

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SAFE GUARD SYSETM FOR LOADING ARM

Emergency Release System (ERS)

Emergency Release System(ERS) is the system that disconnect the loading arm from the tanker manifold within several seconds with no leakage in any emergency circumstances such as sudden and rapid movement of vessels due to gust, earthquake and seismic surges. This ERS system consists of the ERS unit installed integrally at style 80 swivel joint and the electrical/hydraulic equipment that control the ERS unit.

Niigata Loading Systems has successful ERS delivery records for different kinds of fluids and gases and since the first installation in 1982, all of the LNG loading arms supplied in and outside Japan are equipped with this unit.



1 Start separating

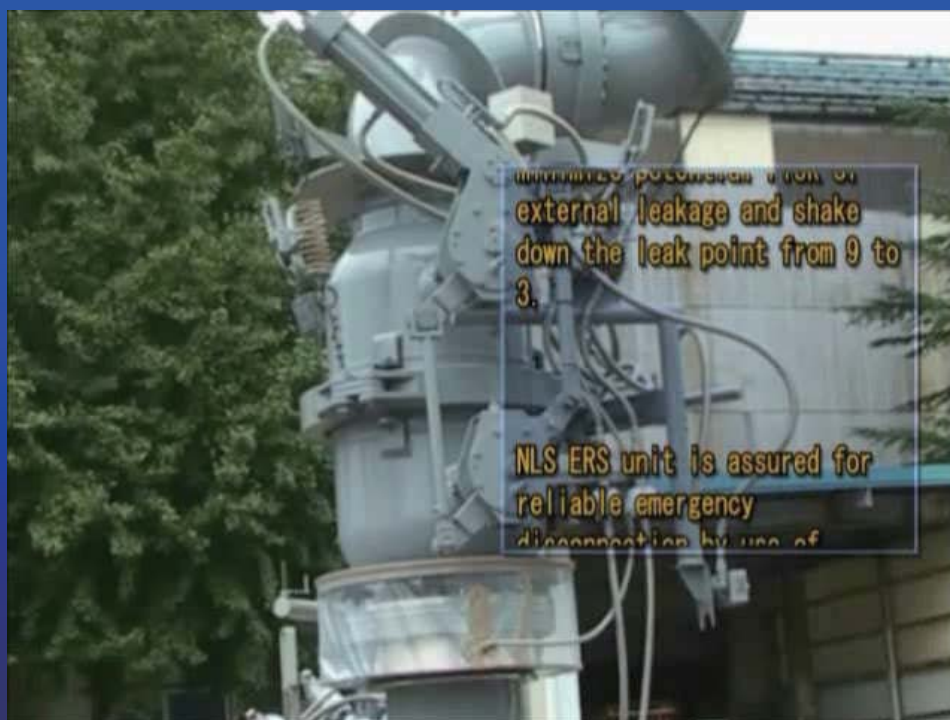


2 Two valves shut completely



3 ERC opens and finishing separation

SAFE GUARD SYSETM FOR LOADING ARM



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AFTERSALES SERVICE ACTIVITIES

Overhauling in Niigata Shop

- Remove the arm from the Jetty
- Transport to Shop
- Overhaul and Inspection by professional staff



AFTERSALES SERVICE ACTIVITIES

- **Overhauling at the Site**
 - **Provide professional advise for preparation including preparation of work procedure.**
 - **Provide technical advisory service by qualified field specialist(s)**



AFTERSALES SERVICE ACTIVITIES

- **Training**
 - **Provide comprehensive training at manufacturer's factory.**
 - **On-site training is also available on request to train maximized number of customer's personnel.**



ご清聴ありがとうございました。

THANK YOU

PRESENTED BY

TOKYO BOEKI ENGINEERING LTD.

TOKYO, JAPAN