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TT CLUB EVENT

SEPTEMBER 30, 2021

**POTENTIAL DANGERS LURKING AMONG
DELAYED AND/OR ABANDONED CARGOES?**

ABANDONED CARGOES - MORE THAN MONEY AT STAKE

Abandoned cargo is not a new challenge. Every year delivery delay or failure of the consignee to collect cargo results in substantial storage, container demurrage and container detention costs.

COVID-19 has also had a significant impact on the supply chain.

Abandoned and delayed shipments of Dangerous Goods adds another level of concern

RISKS



Undeclared & Mis-declared dangerous goods are recognized as a serious risk to the supply chain.

Abandoned or delayed dangerous goods shipments can increase risks as well.

Abandoned or delayed un or mis-declared cargoes adds to these risks.

INCREASING RISKS

- Risks are increasing due to:
 - Delayed transports due to overbooked vessels, roll-over of shipments
 - Longer transport times due to congestion, waiting times, corona restrictions
 - Longer storage times during transshipments due to missed vessel connections
 - Higher ambient temperatures in many parts of the world due to climate change

POTENTIAL UNKNOWN DANGERS?

- Can dangerous goods requiring stabilization present unknown dangers?
- Chemical Inhibitors may denigrate over time, if subjected to increased temperatures and/or lack of oxygen
- Regulatory loop-hole utilizing operational measures unknown to carriers



DELAYS - EXPERPTS

Excerpts from Ports & Terminals Aug 28 article

By: Ann Koh



ONE STUCK BOX OF FERTILIZER SHOWS THE GLOBAL SUPPLY CHAIN CRISIS

DELAYS HAVE STRETCHED A DELIVERY THAT ORDINARILY WOULD TAKE WEEKS TO MORE THAN HALF A YEAR.

CONTAINER BOXES HAVE BEEN LYING AT PORTS, RAILYARDS AND IN WAREHOUSES AS THE PANDEMIC RAGES ON.

IN AN INDUSTRY WITH 25 MILLION CONTAINERS AND SOME 6,000 SHIPS HAULING THEM, IT'S EASY TO SEE DISRUPTIONS AS ONE BIG HEADACHE CONFINED TO THE SHIPPING WORLD.

EACH CONTAINER THAT'S DELAYED IS HEAPING COSTS ONE BOX AT A TIME ON CONSUMERS

THE CHAOS THAT HIT CHINESE PORTS IS A MAJOR FACTOR. YANTIAN PORT IN SHENZHEN WAS CLOSED IN MAY

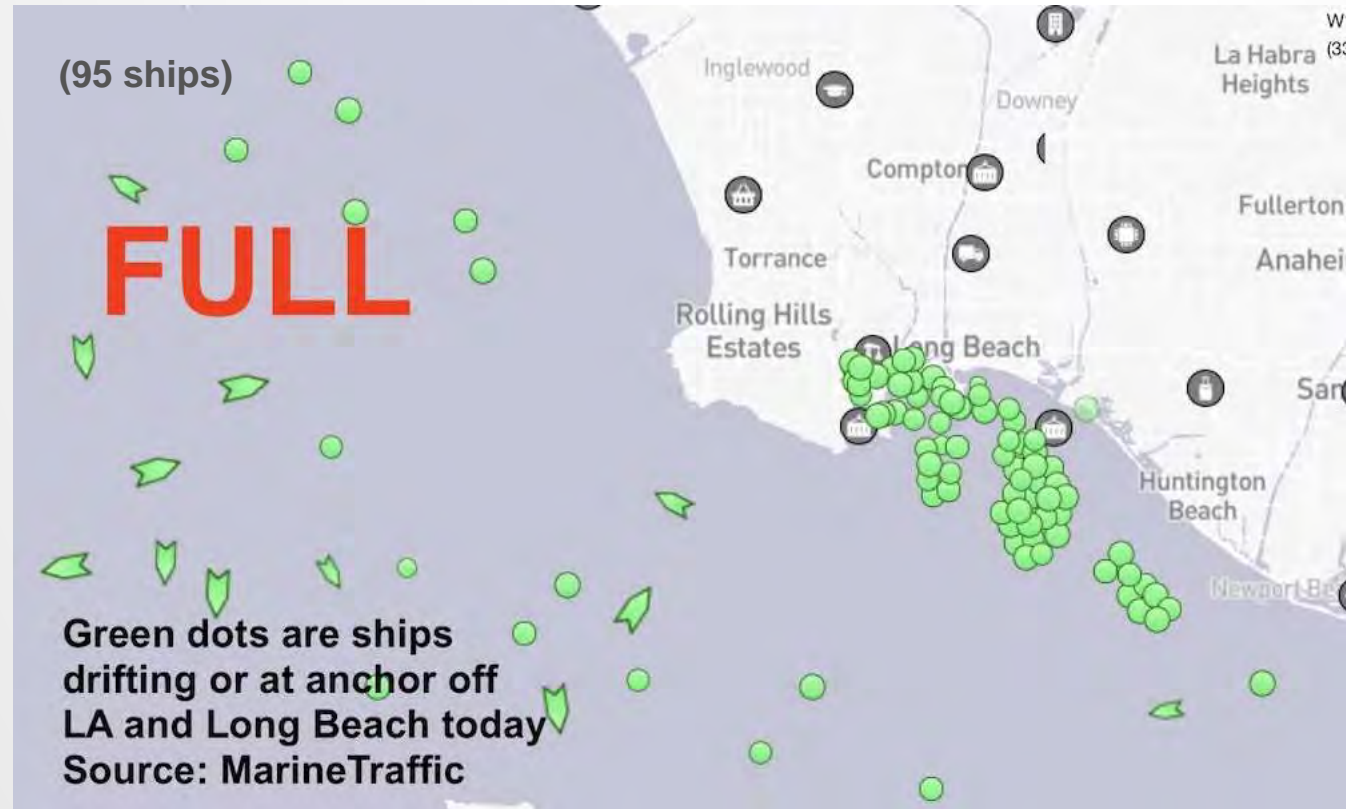
SHIPPING ALSO HAD TO BE REDIRECTED AWAY FROM NINGBO, THE WORLD'S THIRD-BUSIEST CONTAINER PORT, AFTER ONE EMPLOYEE TESTED POSITIVE FOR COVID.

BIGGEST U.S. TRADE GATEWAY WITH ASIA CLOGGED WITH THE MOST INBOUND CONTAINER VESSELS IN MORE THAN SIX MONTHS.

35 SHIPS WERE ANCHORED AWAITING BERTH SPACE OUTSIDE THE TWIN PORTS OF LOS ANGELES AND LONG BEACH,,.

INLAND JOURNEY COULD TAKE ANOTHER ONE TO THREE MONTHS

Record number of ships forced to drift off southern California (95 ships)
September 21, 2021
Marine Exchange of Southern California



DG cargoes galore in Chittagong port mounting risks – EXPERPTS
September 16, 2021

Source: Cogoport Sharar Nayel, Bangladesh Correspondent

BANGLADESH'S PRIME GATEWAY, CHITTAGONG PORT SEEMS TO BE UNDER SEVERE RISK WITH APPROXIMATELY 486 TONNES OF DANGEROUS GOODS (DG) CARGOES REMAIN STORED IN ITS SHEDS AND WAREHOUSES.

SOME OF THESE DG CARGOES ARE WAITING FOR A LONG PERIOD FOR AUCTION OR DESTRUCTION AS THE IMPORTERS DID NOT TAKE DELIVERY OF THEM AFTER THE STIPULATED TIME.

IN BANGLADESH, CHEMICALS LIKE CALCIUM CARBIDE, POTASSIUM CHLORATE, RED PHOSPHORUS, SULFUR, AMMONIUM NITRATE, POTASSIUM NITRATE, SODIUM NITRATE, AND CELLULOSE NITRATE ARE BEING IMPORTED UNDER THE RULES OF THE DEPARTMENT OF EXPLOSIVES.

MEANWHILE, AS OF 15 SEPTEMBER, 6,758TEU WERE LYING AT THE AUCTION UNIT OF THE PORT.

ON 16 SEPTEMBER, THE CUSTOMS AUTHORITY COMPLETED THE 16TH AUCTION EVENT THIS YEAR, AUCTIONING 83-LOT OF CARGOES TO FREE YARD SPACE.

Maersk Gives Bleak Operations Update Amid Unprecedented Supply Chain Chaos

Mike Schuler

Source: gCaptain Daily September 20, 2021

A.P. Moller-Maersk has painted a bleak picture of global supply chains in an operations update published Friday.

The update comes as supply chains are under major stress with historic congestion and bottlenecks plaguing just about every aspect of shipping, with about 10% of containership capacity waiting at or outside clogged ports with no sign of easing this year, according to Maersk's CEO Soren Skou.

POTENTIAL CONSEQUENCES?



MSC Flaminia - July 14, 2012

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Divinyl Benzene 80%)



Even when chemically inhibited this manufacturer's DVB had to be protected from heat and have access to sufficient oxygen to prevent auto-polymerization



Although chemically inhibited, prior to the casualty voyage, the manufacturer experienced a number of incidents where shipments auto-polymerized causing the release of flammable vapors



As a result of the incidents the manufacturer developed procedures to ensure stabilization during warm periods (summer months). This included:

- Increase available oxygen by increasing heat space in the tanks
- Chilling DVB prior to loading into tanks,

- Routing shipments through northern U.S. ports instead of New Orleans to reduce transit times

- Do not deliver more than 4 days prior to loading

- Stowage 'Container to be stowed in stack or below deck to avoid exposure to direct sunlight. Do not stow near heat'

- Do not load if cargo temperature at or above 27°C

MSC Flaminia - July 14, 2012

UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Divinyl Benzene 80%)



Manufacturer provided all information to tank nvoc (shipper to carrier)



Tank nvoc booked with carrier as class 9, un3082. No temperature or operational controls provided on DGD



Tank delivered to NOLA 10 days prior loading. Ambient temperature 90+.



10 days after delivery tank loaded, sailed to freeport, Houston, Savannah, Charleston then cross Atlantic for Antwerp



Unbeknownst to carrier ticking time bomb.

MSC Flaminia - July 14, 2012

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IMDG Code Stabilized Cargoes Summary



- Inherently unstable substances or articles are forbidden – 1.1.3.1
- Under certain circumstances they may be transported; this may include:
 - Chemical Inhibition
 - Temperature control
 - A combination of chemical inhibitors or stabilizers, temperature controls and special transport conditions or operational controls

IMDG Code Stabilized Cargoes

Summary



4.1		3531	POLYMERIZING SUBSTANCE, SOLID, STABILIZED, N.O.S.
4.1		3532	POLYMERIZING SUBSTANCE, LIQUID, STABILIZED, N.O.S.
4.1		3533	POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S.
4.1		3534	POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S.

386 When substances are stabilized by temperature control, the provisions of 7.3.7 apply. When chemical stabilization is employed, the person offering the packaging, IBC or tank for transport shall ensure that the level of stabilization is sufficient to prevent the substance in the packaging, IBC or tank from dangerous polymerization at a bulk mean temperature of 50°C, or, in the case of a portable tank, 45°C. Where chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the packaging, IBC or tank and the effect of any insulation present, the temperature of the substance when offered for transport, the duration of the journey and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat, including other cargo transported at a temperature above ambient) and any other relevant factors."

IMDG Code Stabilized Cargoes Summary



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When substances are stabilized by temperature control, the provisions of 7.3.7 apply. When chemical stabilization is employed, the person offering the packaging, IBC or tank for transport shall ensure that the level of stabilization is sufficient to prevent the substance in the packaging, IBC or tank from dangerous polymerization at a bulk mean temperature of 50°C, or, in the case of a portable tank, 45°C. Where chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the packaging, IBC or tank and the effect of any insulation present, the temperature of the substance when offered for transport, the duration of the journey and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat, including other cargo transported at a temperature above ambient) and any other relevant factors."

- These measures include:
 - The capacity and geometry of the packaging, IBC or Tank and the effect of insulation;
 - The temperature of the substance when offered;
 - The duration of the journey and the ambient temperature conditions typically encountered (considering also the season of the year);
 - The effectiveness and other properties of the stabilizer employed;
 - Applicable controls imposed by regulation and any other relevant factors.

Potential Concerns or lurking dangers ?



IMDG Code Stabilized Cargoes



Perhaps it's time to update the code?



...Safety of Life
and Cargo at Sea...

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