



Bulk tipping guidelines and Ride Alongs

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Why guidelines ?



Because tipping of dry bulk vehicles is a dangerous operation.
And most customers do not know the risks !



Main causes of these accidents

Twist locks

- Twist locks not engaged/ not secured
- Failure of rotating rear bolsters to rotate

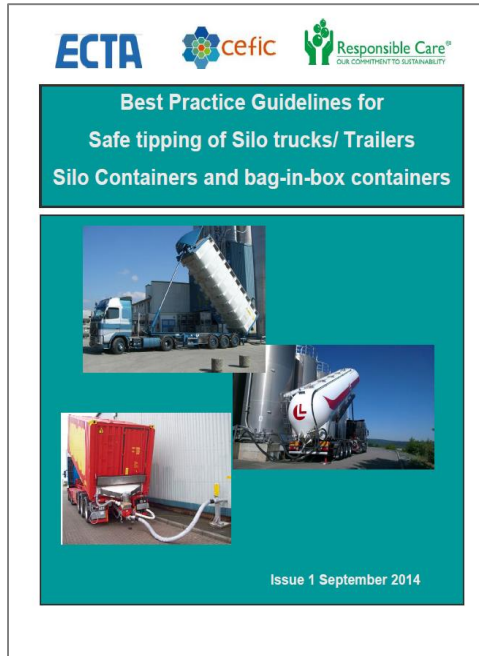
Stabilizing legs

- Rear stabilizing legs not lowered
- Failure of rear stabilizing leg

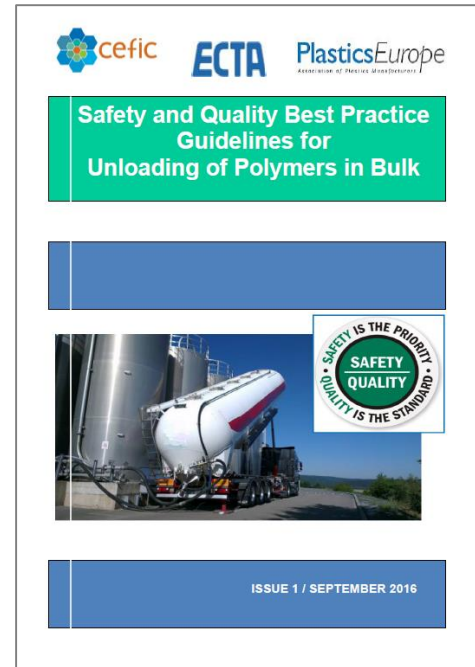
Other:

- Surface unloading area unstable, uneven or weak
- Failure tipping ram
- Avalanche of product during tipping
- Tipping under high wind speed conditions
- No adequate overhead clearance
- Hit by another vehicle during tipping

Two guidelines



Detailed, technical document
for hauliers

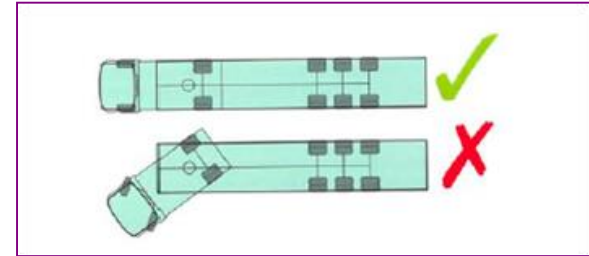


Condensed document
For delivery locations (customers)

Evaluate the risks

1: The unloading area

- * Firm and even (no slope) ?
- * Concrete or asphalt ?
- * Can sustain 25 ton per rear stabilising leg ?
- * No overhead obstructions ?
- * Away from the public road ?
- * No dangerous activities during unloading ?
- * Safe access ?
- * Tractor / trailer placed in straight line ?
- * etc.



Evaluate the risks

2: Site unloading procedure

- * Procedure to stop unloading at high wind speeds
- * Supervision (operators must understand the unloading process)
- * Operators to check twist locks
- * Clear driver instructions
- * ...

3: Driver unloading procedure

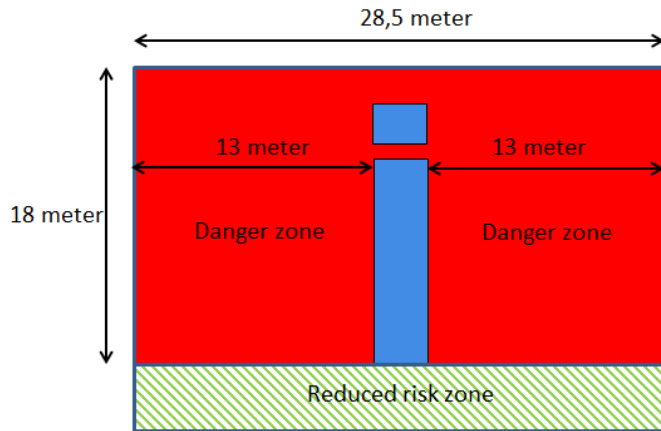
- * Check twist locks
- * Check stabilizing legs
- * Tipping process (free flowing products vs 'sticky' powders)
- * Position of driver during tipping
- * Stop unloading at high wind speeds
- * ...

4: The technical condition/ equipment of the truck

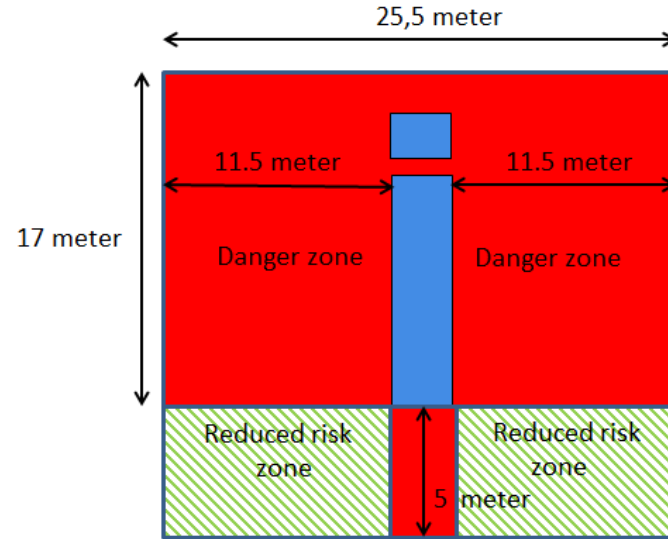
- * Condition and use of rear stabilizing legs (sensors / interlocks ?)
- * Position tipping switch (dead man's button), remotely controlled ?
- * Twist lock indicators
- * Level indicators
- * Tipping chassis (containers)
 - Twist locks with twist lock indicators
 - Front and rear bolster bars
 - Safety beams
- * Condition of tipping ram
- * ...

Evaluate the risks

5: The danger zones: the impacted area if a silo/ container would tip over



Silo truck



30 ft container

Responsibility of the driver

- Respecting all site safety rules
- Respecting procedures to prevent pellet loss
- Providing the delivery documentation
- Supplying equipment that is fit for the operation, including seals and integrity.
- Correctly unloading the bulk truck and be fulltime present to observe the unloading process

Responsibility of the customer (unloading site)

- Providing a safe working environment
- The safety of the driver, including providing site safety/unloading instructions
- Providing suitable infrastructure for unloading
- Prevent loss of pellets
- Informing the supplier of any unloading limitations / special requirements
- Checking the validity of material arriving, documentation, seals and integrity
- Checking and verifying the delivery paperwork to ensure the material is “as ordered”
- Correctly connecting / fitting product hoses to the storage silo and checking if the silo can accommodate the quantity to be transferred. Giving approval to the driver to start.
- Ensuring that the unloading conditions are properly set (transfer of product from trailer to silo does not lead to the formation of fines or other damage.
- Supervising the unloading process

Ride Alongs

- Originally: Join the driver from entrance loading site till delivery to the customer
- Now: Attend the unloading operation
- Purpose:
 - Assess the standard of the unloading facilities
 - Assess the standard / equipment of the truck
 - Evaluate the unloading process (driver and customer)
 - Take time to talk with the driver (issues, concerns ..)
 - Show the customer our commitment to safety
 - Give advice for further improvement on SHE to haulier/ customer

Ride Alongs

- Data based on our checklist and 103 Ride alongs
- Divided into the following categories:

Checks (supervision by operator, risk evaluation, cleanliness checks, etc.)

Behavior (PPE, tipping, bypassing dead-man switch, etc.)

Infrastructural (location, obstructions, segregation, road surface, etc.)

Others (no spill kit, No wind speed measurement or protection against wind, etc.)

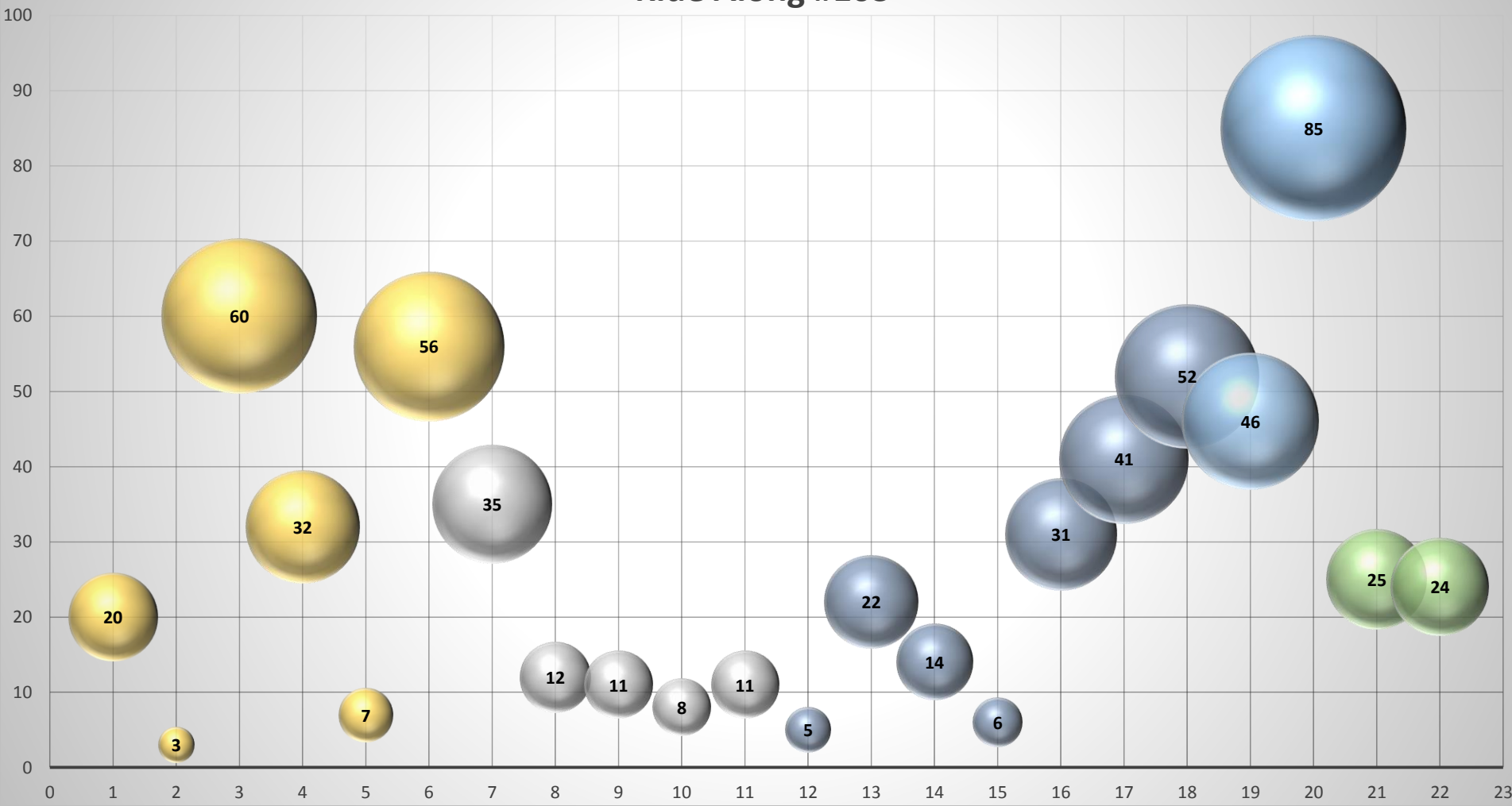
Truck equipment (no dead man switch, etc.)

Ride Alongs

Category	Item
Checks	No proper instructions driver
Checks	Language issue driver
Checks	No supervision/ no checks operator (legs, twist locks.;
Checks	No means to contact operator
Checks	Risk of unloading in wrong silo
Checks	No cleanliness checks by operator
Behaviour	Driver not wearing proper PPE (as required by Ineos)
Behaviour	Bypassing dead man switch
Behaviour	No tipping in stages
Behaviour	Working at height without protection
Behaviour	No restraint system hoses
Infra	Unsafe location unloading area (public road..)
Infra	Unsafe access to unloading place and no assistance
Infra	No solid road surface
Infra	Overhead obstruction
Infra	No proper earthing
Infra	Vulnerable equipment/ people in danger zone
Infra	No segregation
Other	No spill kit
Other	No wind speed measurement and no protection against wind
Truck equipment	No dead man switch
Truck equipment	Switch not at back/ no remote control

See and
use
handout

Ride Along #103

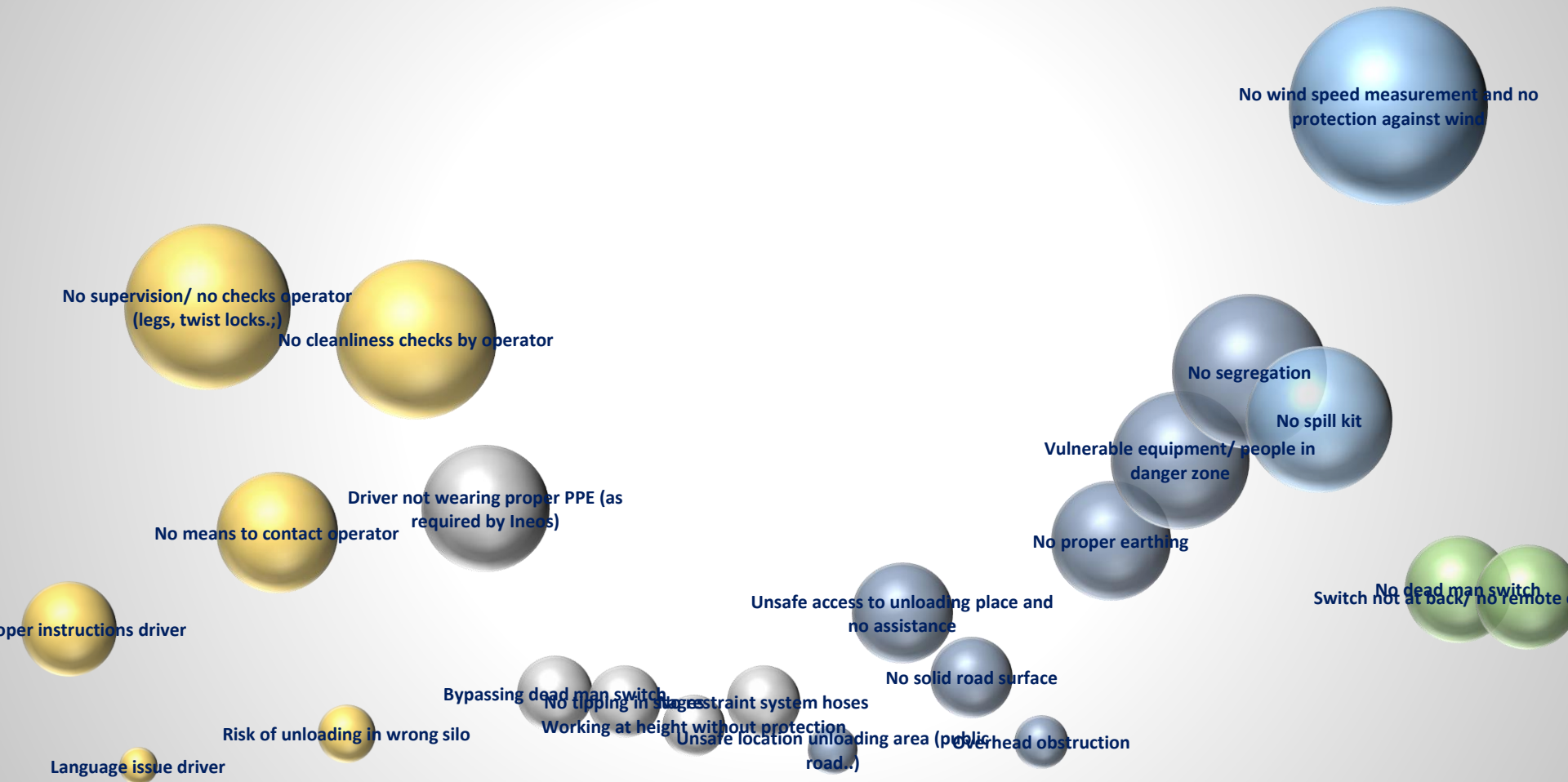


Ride Alongs

Category	Item	103	%
Checks	No proper instructions driver	20	19
Checks	Language issue driver	3	3
Checks	No supervision/ no checks operator (legs, twist locks.;	60	58
Checks	No means to contact operator	32	31
Checks	Risk of unloading in wrong silo	7	7
Checks	No cleanliness checks by operator	56	54
Behaviour	Driver not wearing proper PPE (as required by Ineos)	35	34
Behaviour	Bypassing dead man switch	12	12
Behaviour	No tipping in stages	11	11
Behaviour	Working at height without protection	8	8
Behaviour	No restraint system hoses	11	11
Infra	Unsafe location unloading area (public road..)	5	5
Infra	Unsafe access to unloading place and no assistance	22	21
Infra	No solid road surface	14	14
Infra	Overhead obstruction	6	6
Infra	No proper earthing	31	30
Infra	Vulnerable equipment/ people in danger zone	41	40
Infra	No segregation	52	50
Other	No spill kit	46	45
Other	No wind speed measurement and no protection against wind	85	83
Truck equipment	No dead man switch	25	24
Truck equipment	Switch not at back/ no remote control	24	23

Checks (supervision by operator etc)
Behavior (PPE, tipping, bypassing dead-man switch, etc)
Infrastructural (location, obstructions, segregation, road surface, etc..)
Others (no spill kit, No wind speed measurement or protection against wind)
Truck equipment (no dead man switch)

Ride Along #103



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