



Nippon Yakin Kogyo Co., Ltd.

Reducing the risk of collisions

Award: Safety
Category: Accident analysis

Challenge

In 2013, a collision occurred between a pedestrian and a heavy machine. We wanted to take measures to prevent a similar accident in the plant occurring again.



1. Truck drivers now show a sign with a specific colour and number to indicate their destination



2. An alarm and flashing light warn of approaching forklifts

Action

To ensure there are no accidents, we have taken the following actions:

- Identified areas in the plant where there is the potential risk of collision
- Created a map of the areas which must be risk-free. We defined an order of priorities for action and implemented it on schedule.
- Promoted the installation of alarms in machines which move. We focussed on heavy machinery with poor visibility.



3. This sign is used to warn truck drivers they must make contact with someone inside the plant before reversing



4. A movable barrier prevents pedestrian access during vehicle movements

Outcome

There have been zero accidents between people and machinery since we took this action.

The following table shows the actions taken in different areas.



5. A light warns pedestrians that the overhead crane is working

Collision risk	Action	Image #
Truck drivers and flagman	Truck drivers show a sign with a specific colour and number to indicate their destination. Flagmen understand where the drivers want to go from this information. Flagmen can indicate the correct direction without approaching the truck.	1
Forklift and pedestrian (at entrance to building)	Sound an alarm when a forklift approaches the entrance.	2
Trailer backing into plant buildings and pedestrian	Set out the sign that instructs drivers to make contact with someone inside the building before entering.	3
Forklift and pedestrian (at crossings between plant buildings)	Set movable fences to block forklifts when pedestrians are passing through.	4
Overhead crane and pedestrians	Set electrical signs to show no entry when the overhead crane is working.	5