

Project Health and Safety Services Ltd

Protecting Your World



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Programme

Protecting Your World



Excavators:

Hitches, lifting, blind spots/safe zones, mirrors/cctv and clean cabs

Video Clip BB A46

Accidents

Other plant

Good practice

Fitness for work

Questions

On arrival at site



- Check all certification, PUWER & LOLER thorough examinations
- Operating instructions, duty charts etc.
- Ensure daily/pre use checks are carried out on machines
- Drivers/operators qualifications including any lifting specifics for excavators
- Fitness to work for drivers/operators

Hitches





Accidents – struck by plant

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(No 54 Notified) 18 Dec 2006
Manchester DP was in a
box trench preparing to lay
pipes when bucket of
excavator became detached
and fell on top of him.

Prosecution

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Digger driver jailed for one year

DIGGER DRIVER Michael Ernest Roys of Doncaster has been sentenced to a year in prison after he pleaded guilty to manslaughter.

Roys was operating an excavator at the Drax Power Station in North Yorkshire on 28 September 2007 when the bucket became detached from the semi-automatic quick hitch and struck Alwyne Parkinson.

Parkinson was taken to hospital, but

died from his injuries on 1 October.

Investigations showed that the safety pin was missing from the semi-automatic hitch at the time of the incident and in April, Roys pleaded guilty to the manslaughter charge.

There were four similar deaths last year involving semi-automatic quick hitches.



More on contractjournal.com/quickhitches







JCB Incident



JCB Incident



Operator stands up from seat to hand Tommy Bar to operative

JCB Incident



JCB Incident



JCB Incident



JCB Incident



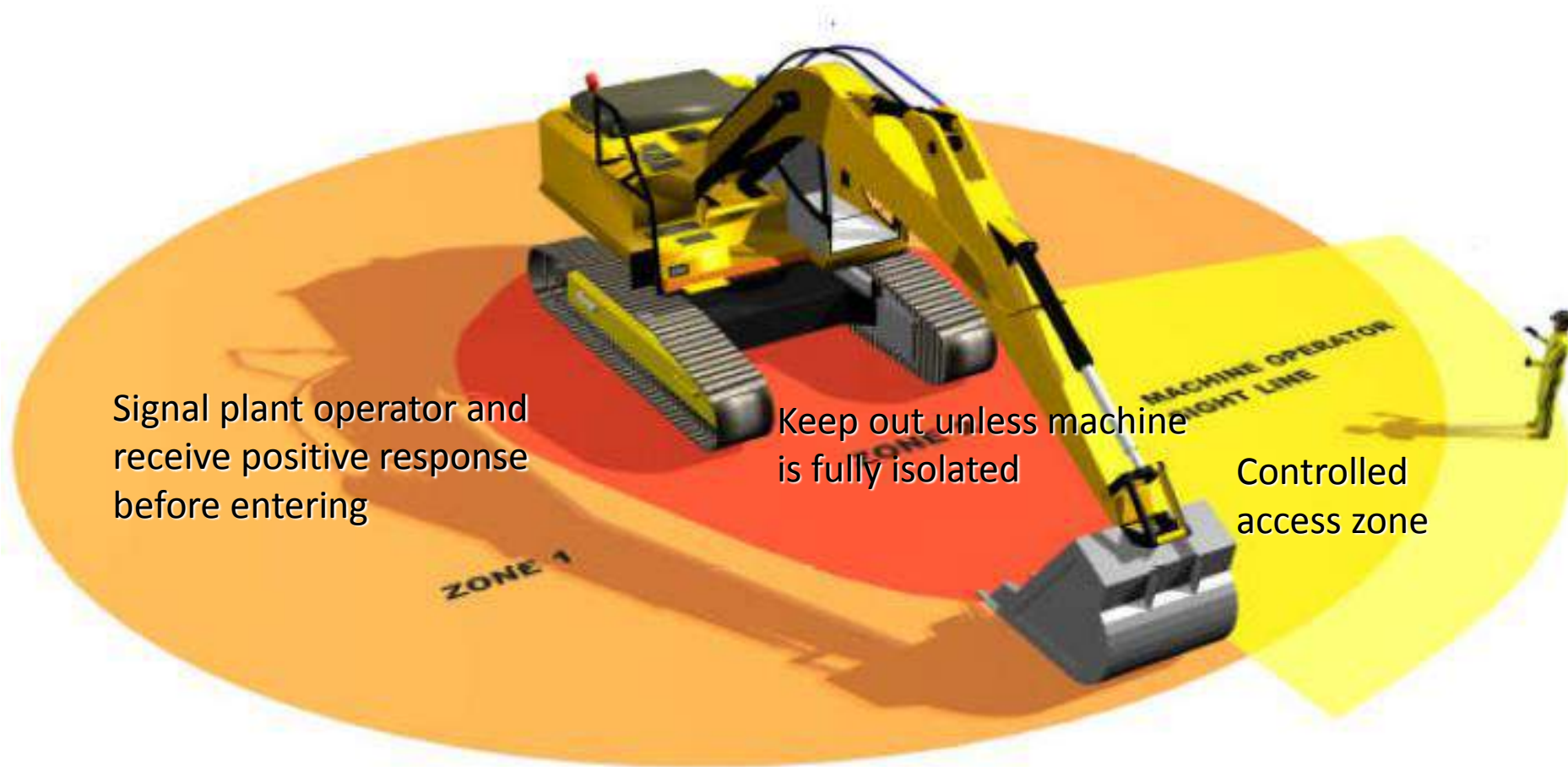
JCB Incident







People and Plant Interface: Exclusion Zones



Visual Standards

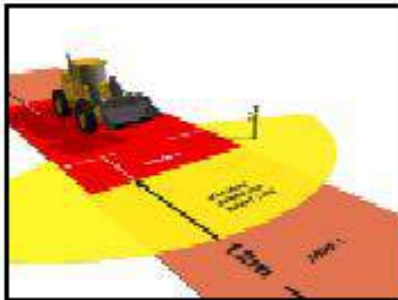


Balfour Beatty Civil Engineering

Balfour Beatty Major Civil Engineering

Visual Standard Plant Safe Zones (Serial 3)

The diagrams below give an understanding of the safe zones applicable to a range of plant machinery likely to be used on site.



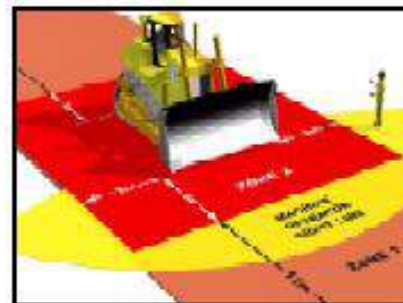
Zone 1 - Always signal the plant operator and receive a positive response before entering Zone 1

Zone 2 - Keep out of at all times.

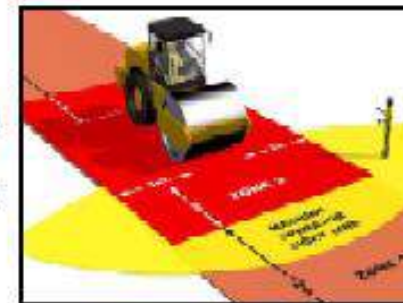


Excavator operators are to ensure that safety levers are activated, machines are switched off and buckets are down before people approach plant.

Anyone approaching plant must make eye contact with the operator and wait until signalled.



Plant and Vehicle Marshals must wear the correct colour PPE and identification as per the site rules





- Crushed between bucket and track
- Multiple breaks
- Severe bleeding
- Hours in surgery
- Loss of limb below knee



BB A46 Accident



Near miss whilst lifting



LOLER

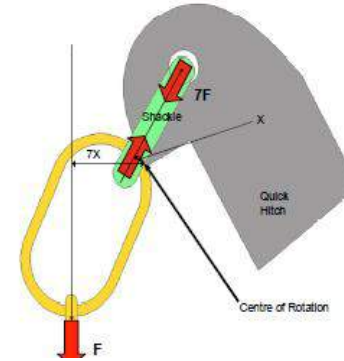


Standard Lifting Operations



Lifting with excavators

- Operator CPCs or equivalent must cover lifting duties if lifting
- In line swivel shackle to be used when lifting
- Lifting persons is prohibited



What do you think caused this?





Any ideas now?



Would a banksman have prevented this?



A trained banksman/marshal in a 'safe position' would have prevented this accident



Reversing Vehicles-Reversing Aids



- Many items of plant and vehicles are now fitted with devices to aid the operator or driver during reversing operations, these are just as suggested, aids and should not be relied on as a substitute for a “safe system of work”.



CCTV

A number of vehicles and items of plant are fitted with CCTV, this is particularly useful on vehicles such as road sweepers which operate on the public highways.

Any potential problems with these devices?



CCTV



The driver or operator has a screen in the cab, black and white or colour. Colour is preferable as it gives better definition and greater depth of field. It is essential that the camera and screen are kept clean to maintain optimum visibility



REAR VIEW MIRRORS

- Most vehicles and items of plant are fitted with some type of mirror to assist with rear vision. These must be maintained on an ongoing basis. Poorly adjusted or dirty mirrors, cracked glass or loose fitting vibrating devices can all produce a poor quality or distorted view.



360o MIRRORS for EXCAVATORS



- Excavators spend their working day slewing and reversing and must therefore be fitted with mirrors which give visibility all around the machine at a minimum of **1m above ground and around the machine.**



360 Mirrors

- These mirrors are often badly fitted. A common problem is mirrors fitted close to exhausts which “soot up” when the engine starts. Mirrors are also easily damaged particularly when working in trees or foliage. The main problem however tends to be lack of use by operators, a serious and unacceptable breach.



REVERSING ACCIDENTS



- Incidents involving reversing plant and vehicles account for the second highest fatal accident causation in the construction industry

Tipper trucks



- A tipper driver dislocated his ankle when his truck overturned. Whilst discharging his load of top soil the vehicle started to lean and eventually went over on its side. The driver attempted to leave the vehicle but fell within the cab injuring his ankle.



Your Personal Safety



- Personal safety should not be compromised, always maintain a safe distance from any vehicles, particularly if they are reversing, and any fixed object and never stand this close when tipping operations are underway, lorries do fall over!



Advancements in Technology

Sensors on Dumpers



Advancements in Technology

Sensors on Dumpers







Good Practice



Safe Workplace - One Way System



Plant Inspection Tags



Daily inspection
displayed



Clear when plant out
of operation



Investing for the future

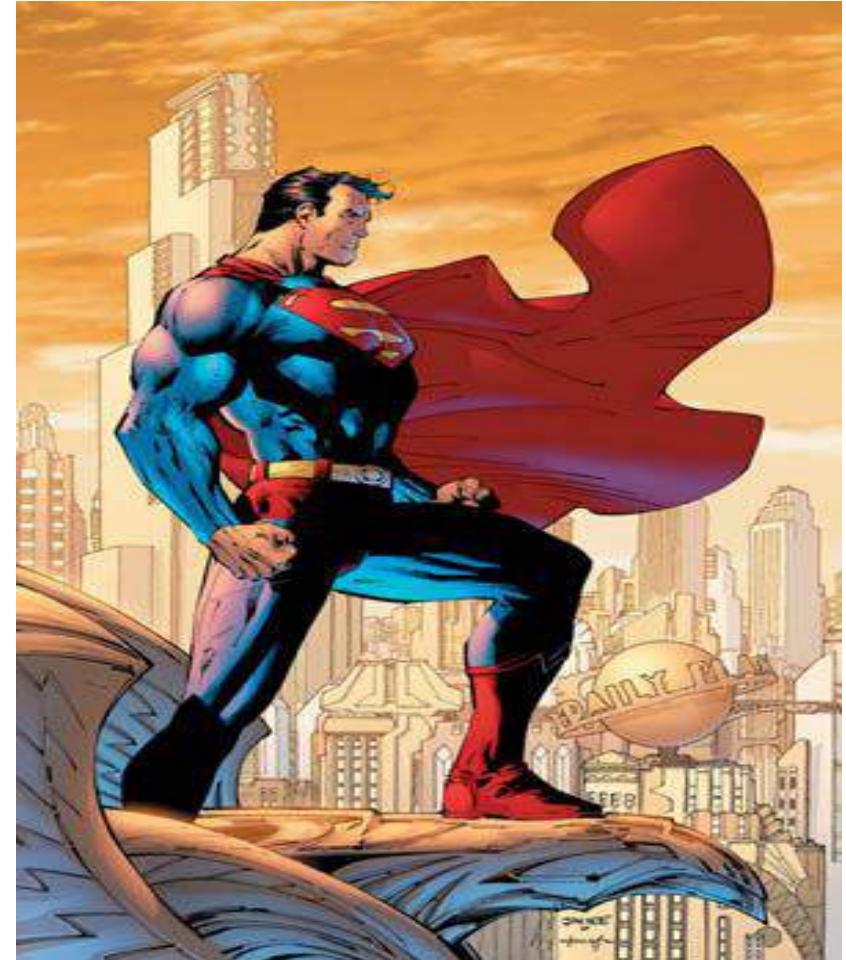


Investing for the future



Operators

- **Attributes required for the job include:**
- A reasonable level of fitness and agility.
- Good eyesight and hearing.
- Good coordination
- Medicals – Safety Critical Operation



OCCUPATIONAL HEALTH



Plant operators are safety critical

D&A Testing

Good health is good business

What is more important than your health and safety?

Drugs and Alcohol

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- Problems associated with drugs and alcohol in a high risk industry.
- Depressants.
- Increased risk?
- What action would you take if you know someone is under the influence of drugs or alcohol?
- Research shows that drug and alcohol misusers are 4 times more likely to be involved in workplace accidents

OPEN FORUM



Questions Please?