

Road Safety

An Organisation's Perspective

Tadhg Crowley
ESB Safe Driving Programme

June 2010



ESB – The Company

- The leading electricity utility in Ireland, established in 1927
- Responsible for 39% of generation in All Island Electricity Market
- Distribution system owner and operator, transmission system owner in Rol
- Investments, operation contracts, consultancies in 25 countries (2008)
- Turnover of €3.5bn (2008)
- Employs 7,400 staff



Control Our Most Serious Hazards

Electricity

- ✓ Implement the Five Golden Rules
- ✓ Maintain the Close Proximity Zone
- ✓ Implement Live Work Procedures
- ✓ Verify Polarity and Rotation
- ✓ Implement Cable Identification
- ✓ Wear appropriate Arc Protection

Driving

- ✓ Wear Seat Belts at all times
- ✓ Drive carefully within Speed Limits for road conditions and fatigue
- ✓ Never drive under influence of alcohol or drugs
- ✓ Secure all loads carefully
- ✓ Carry out basic vehicle checks

Cabling

- ✓ Check for e.g. services before excavation
- ✓ Shutter/Protect when below ground
- ✓ Protect edges against encroachment
- ✓ Implement correct cable pulling methods
- ✓ Stay clear of equipment under tension
- ✓ Erect suitable signage and barriers

Working at Heights

- ✓ Complete all Pre-Climbing checks
- ✓ Use 100% tie off
- ✓ Use safety harness when necessary
- ✓ Ensure fall arrest equipment is engaged when working at heights
- ✓ Use bucket or MEWP
- ✓ Establish Controlled Entry Zone

Hand Equipment

- ✓ Use 'best before' date – where applicable
- ✓ Check for defects of equipment
- ✓ Use equipment in respect of safety

Mechanical Lifting

- ✓ Check equipment before use
- ✓ Establish exclusion zone
- ✓ Implement the correct lifting methods
- ✓ Extend stabilisers fully
- ✓ Wear the appropriate PPE

Signed

			
Mike O'Sullivan South West Safety Committee	Brian Madden Midlands & West Safety Committee	James McHugh North West Safety Committee	John Lyons Mid West Safety Committee
			
P.J. Rice North East Safety Committee	Tony Connolly Dublin Central/South & Inchicore, Safety Committee	John Begley South East Safety Committee	Seamus Walsh Network Projects Contracting Partners
			
Michael Hughes Technical Safety Specialist	Kieran Cogan Manager Technical Development	Kieran McAuley Safety Officer Networks Support	Gus Connolly Technical & Safety Supervisor
			
Dominic O'Brien Networks Projects Manager Distribution East	Paddy Murray T.E.E.U. Representative	Ger Buckley Health & Safety Manager Chairman, ESB Networks	Junior Coss A.T.G.W.U. Representative
			
Johnny Shine Executive Director ESB Networks			

LOOKOUT FOR YOURSELF LOOKOUT FOR EACH OTHER

ESB Journal of July 1964

SAFETY AWARDS FOR DRIVERS



The District Manager, Dublin No. 1, Mr. R. A. H. Jackson, at a ceremony in Fleet Street recently, presented three members of the Dublin No. 1 staff with Certificates and Silver medals

from the Safety First Association of Ireland for five years' accident-free driving in the service of the Board. In presenting the awards, Mr. Jackson said that their record was particularly noteworthy in view of the volume of traffic in and around the city.

Photographed at the presentation ceremony are (l.-r.): T. Fitzpatrick, Driving Supervisor; J. A. Murphy, Deputy District Engineer; Mr. Jackson, and award winners J. Swaine, L. Duffy (who retires in September after over 30 years as a driver) and J. Brennan.

ESB Fleets

1900 Commercial Vehicles

50M km/ annum

4000+ people driving cars on business

22M km/annum

Commuting

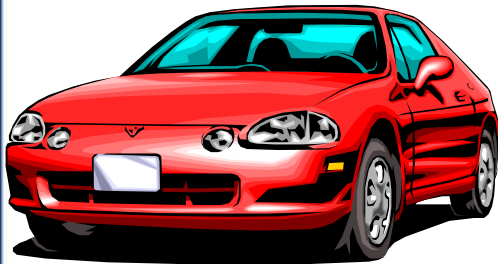
81% Motor Vehicles;

7% Public Transport

11% Walk/ Bicycle

Overseas

Staff working abroad on consultancy



WHAT HAVE WE BEEN DOING TO MANAGE DRIVING RISK?

- Senior Leadership
- Awareness / Education programmes
- Driving Policies / Enforcement
- Training / Assessment
- Vehicle Specifications
- Collision Reporting

Safe Driving Steering Group

EDT Sponsor
Johnny Shine

ESB Networks

Tom Reilly,
Conal Bonnar,
Noel Rushe

Energy Solutions

Arthur Byrne,

**ESB Energy
International**

Pat Gilbride
Mike Fitzgerald

**Finance &
Commercial**
William Caffrey

**Corporate
Centre**
Ronan Collier

Supported by Tadhg Crowley and Grainne Coogan, ESB Safe Driving Bureau





Education / Awareness

SAFETY – IT'S MY RESPONSIBILITY VEHICLE SAFETY CHECK LIST



FLEET DRIVERS –
This 60 seconds could save a life!

DRIVERS CHECK DAILY:

-  MIRRORS FOR ALL-ROUND VISIBILITY
-  WINDSCREEN WIPERS & WASHERS
-  LIGHTS & HORN (In Working Order?)
-  BLEEPER WHEN REVERSING
-  FUEL LEVEL
-  SECURITY OF LOAD & EQUIPMENT
-  TYRES (Damage, Slow Punctures?)
-  DASHBOARD WARNING LIGHTS
-  WHEEL NUT INDICATORS
-  SEAT BELTS

DRIVERS CHECK WEEKLY:

-  TYRES (Pressure, Wear, Tread Depth 1.6mm?)
-  WINDSCREEN (Cracks or Chips?)
-  LIGHTS/BEACONS (Operation & Cleanliness?)
-  VEHICLE TOOLS (Jack, Wheel Brace, Fire Ext., 1st Aid Kit, & Warning Triangles?)
-  OIL & FLUID LEVELS
-  WHEEL NUTS
-  DRAIN AIR TANKS (where appropriate)
-  HOUSE KEEPING (Clean & Tidy Vehicle?)



DRINK / DRUGS AWARENESS TRAINING

Working with HSE and our
own Employee Assistance
Officers to develop a
programme for all staff to
raise awareness of Drink &
Drugs and driving



Policies / Procedures



Driving Licence Requirements.

To **DRIVE** this vehicle, the **LICENCE** required is:

B

To **TOW** a load where the:

B

- The Design GVW does not exceed the unladen weight of the drawing vehicle and the Total design GVW of the combination does not exceed 3,500kg.
- The design GVW of the trailer does not exceed 750kg

To **TOW** a heavier load.

EB

Never exceed the manufacturer's instructions as to maximum permitted weight that the vehicle can safely tow/draw.
0906748



Reverse In – Drive Out Policy



Reversing



Vehicle Safety Checks

Consolidation of driving policies into a Drivers handbook



ENFORCEMENT - Audits

Seat Belt Audits

Vehicle Audits

Driving Audits

Safety Audits

The image shows a 'JobAid' Driving Audit form. It is a detailed checklist for assessing driving safety. The form includes sections for 'Vehicle Safety Check', 'Driving Performance', and 'Other Road Users'. It features a large '80 km/h' speed limit sign graphic and a 'STOPPED/DRIVING' status indicator. The form is designed to be filled out by an auditor, with checkboxes for 'Yes', 'No', and 'Not Sure'. The bottom of the form includes a date field, a signature line, and a reference number.

Driver Training

Advanced Driver Training

Specialist Vehicle Training

ATV Training

4X4 Training

Cable Winch Op. training

Hoist training

Crane Truck Training



Driver Development Training

Specialised Training



Vehicle Specifications

FISH EYE MIRRORS

REVERSING BEEPERS

REVERSING SENSORS

REVERSING CAMERAS




Reversing Camera Set
RV 5100



Maintenance

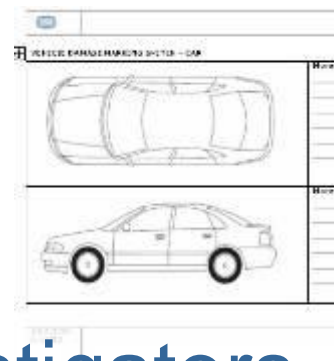
Preventative
Maintenance
Regime

Planned and
Unplanned

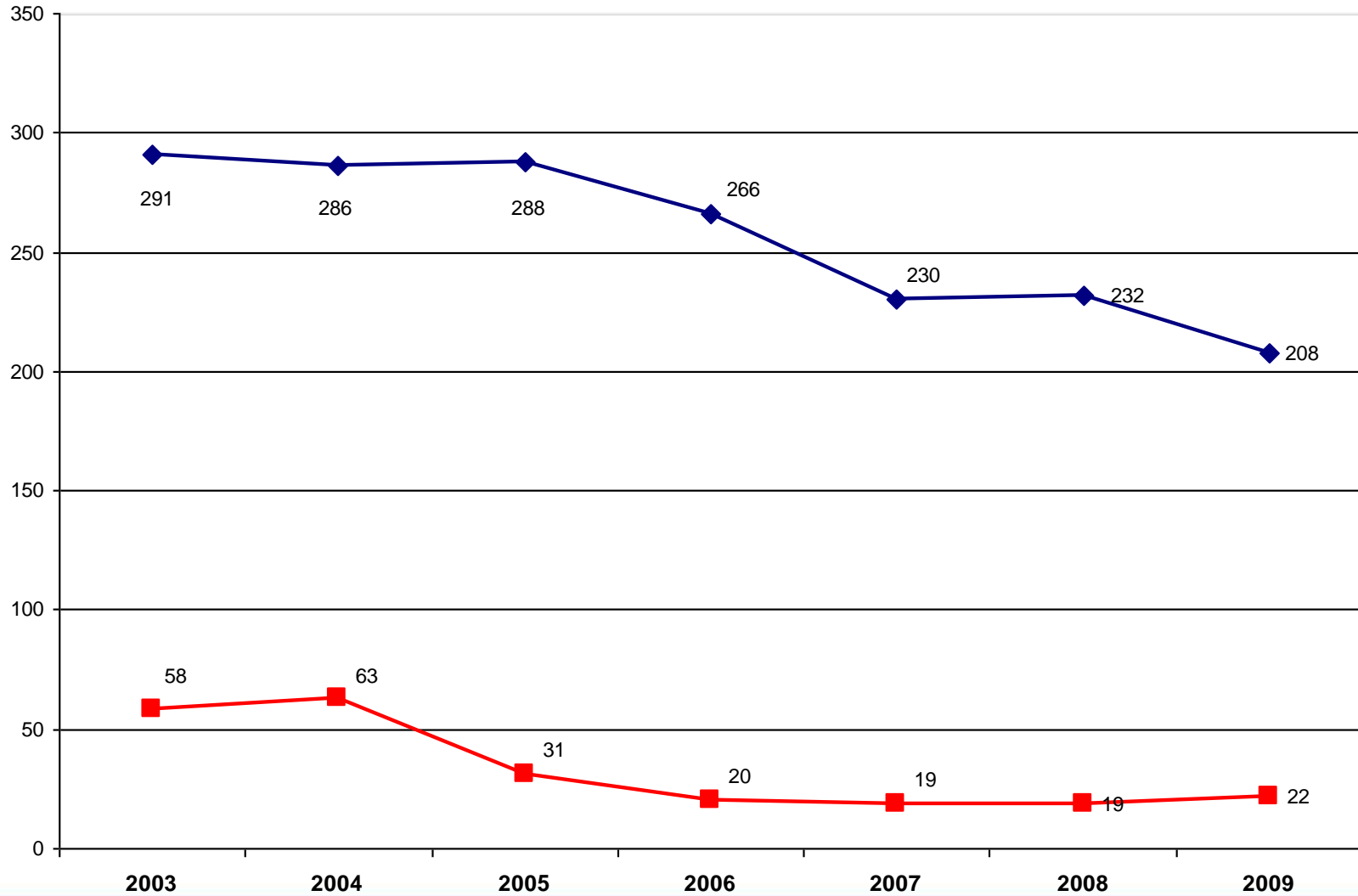
Vehicle Defect Report No.		
Date:	228903	
Reported by; (driver name)	228903	Odometer reading:
Details of defects; (driver complete)	COJ 1234	19001
1) No REAR LIGHTS		
2) SEAT BELT FAULTY		
Is this a reoccurring defect? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (tick one box)		
State ESB workshop; (driver complete) TALLAGHT or repairer name;		
Signature of defect repairer: Sean Bloys Date: 1/10/07		

Collision Investigation

- Reporting all collisions
- Investigation as per procedure
- Reports
- Use of external investigators

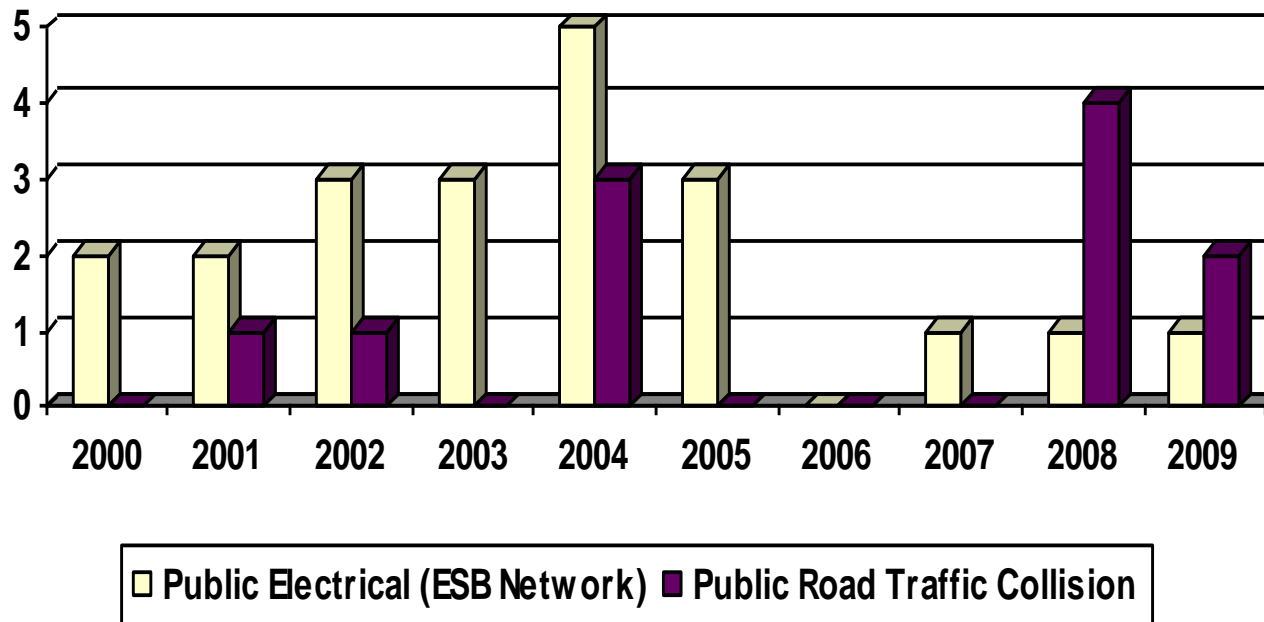
The image displays two forms from ESB. The top form is the 'MOTOR ACCIDENT REPORT FORM' with sections for 'CRASH DETAILS', 'DRIVER DETAILS', and 'VEHICLE DETAILS'. The bottom form is the 'ESB "Bump" Card', which includes instructions for drivers and a section for 'Collision Details'. A yellow box is overlaid on the bottom right of the forms, containing the ESB logo, the text 'Vehicle Collision Pack', and contact information for ESB Safe Driving Bureau.

Collisions ESB Commercial Vehicles



◆ Total ■ Class A

Fatalities to the Public 2000 - 2009



Financial Benefits

- Reduction in Fatalities = €11.6M
- Reduction in Class A (Serious) Collisions = €17M
- Motor Insurance premiums fell to 15% of 2003 levels

Table A2: Total Cost of Road Collisions In 2007

Type	Number of collisions	Cost per collision	Total cost (€)
Fatal	309	€2,891,435	€893,453,472
Serious	618	€386,286	€238,724,498
Minor	4,540	€38,045	€172,725,207
Material Damage	23,770	€3,044	€72,346,752
Total	29,237	N/A	€1,377,249,928

¹ Source of GNP per person employed Growth rate = CSO

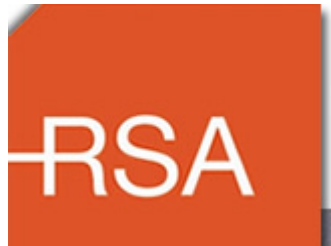
Source Goodbody Economic Consultants, Report for Dept. Transport.

Safe Driving Programme 2009 - 2011

- KPIs set e.g.
 - Zero fatalities as a result of our driving activities.
 - 50% reduction in Class A collisions in the Commercial fleets
- Integration of Safe Driving into Business Line Health & Safety Improvement Plans
- Specific targets including Risk Assessment and Advanced Driver Training
- Road Safety Awareness for all ESB staff

Safe Driving Programme 2009 - 2011

- Strategic Alliance



- ESB Commitment to the European Road Safety Charter.



Risk Assessment for Transport and Road use

Guidance elements

- Workplace (HSA)
- Journey (RSA)
- Vehicle (HSA/RSA)
- Driver (HSA/RSA)

Our Experience

- Complex
- Some outside immediate control of management
- Useful exercise to help determine significance of risk

Risk Assessment – Job Aids

THIS MUST BE USED IN CONJUNCTION WITH JOB AIDS XX AND YY



DRIVING RISK ASSESSMENT – HOW TO MANAGE WORKPLACE TRANSPORT AND ROAD SAFETY RISK ASSESSMENT

7 STEPS TO DRIVING RISK ASSESSMENT ✓



1. List vehicle types
2. Identify journey types
3. Identify the hazard
4. Decide who is at risk
5. Assess the risk
6. Record your findings
7. Review the risk assessment

Step 1: List vehicle types that your staff member(s) may use for work including their own car, commercial vehicles, Hoists, ATVs, Forklifts, Dumpers, Tractors, Loaders etc.

Step 2: Identify journey types. These may include short or long journeys. Frequent or infrequent, site routes, local routes or national routes and motorways, driving in city, town or country, night time or daytime driving.

Step 3: Identify the hazards:
Refer to Safe Driving Job Aid TRANSPORT AND ROAD SAFETY RISK ASSESSMENT
As a minimum consider the following:

- Workplace
- Journey
- Driver
- Vehicle

Step 4: Decide who is at risk: Consider driver, passenger, other site/road users and pedestrians.
Consider particular risks – young, newly qualified, long distances, schools, church, site vehicles and site layout etc. Consider what could go wrong.

Step 5: Assess the risk: Are current control measures good enough?

Apply the General Principles of Prevention:

- Avoid the risk
- Combat risk at source
- Adapt the work to the individual
- Replace unsafe vehicles
- Offer instruction and training
- Provide equipment to protect workers

Step 6: Record your findings

Look for weaknesses in your risk assessment. Do controls create new or additional risks?

Also keep records of your collisions and near misses

Step 7: Review your risk assessment regularly. Take account of changes in circumstances, new routes, staff or vehicles. Revise as necessary.

CARRY OUT RISK ASSESSMENTS FOR ALL DRIVING TASKS

HAZARDS

A Hazard is anything that can cause harm, e.g. vehicle, loading, environment, journey, driver etc.

RISKS

Risk is the likelihood or possibility of an accident occurring, taking into account the severity or consequences of the accident (eg. collision or personal injury)

This includes risks to people involved in driving and operating transport equipment, people in the vicinity and other site or road users.

Likelihood		Examples
1 Almost impossible	Not foreseeable	Seldom exposed to vehicles
2 Unlikely	Considerable. Requires combination of factors	Driving on good roads, Familiar routes, Driver competent, healthy and fresh
3 Possible	Possible if additional factors are present	Longer journeys, unfamiliar routes, unfamiliar vehicle, minor roads, fatigue, time constraints
4 Likely	Will occur if combination of risk factors are present	Speed, Work times, Inclement conditions, Using mobile phone while driving
5 Probable	Almost inevitable	Drunk driving

Severity		Examples
1 Negligible	Slight impact with no damage or injury	Bumped Mirror off parked car at low speed. No damage
2 Minor	Non-fatal time injury Slight vehicle/equipment damage	Clash of mirrors with oncoming car. Broken mirror. No injury to vehicle occupants.
3 Moderate	1 person suffering an LTI Moderate repairable damage to vehicle/equipment	Absence from work from 1 to 3 days after day of accident. Repair costs £2000 - (Class B collision)
4 Serious	1 or more persons having prolonged absence from work. Vehicle/equipment requiring significant repair	Absence from work for more than 3 days (Reportable Accident). Vehicle/equipment inoperative after collision. (Class A collision)
5 Major	Fatality / fatalities. Serious injuries. Severe damage to vehicle / equipment	Collision involving fatalities or persistent long term health effects. Vehicle / equipment beyond repair.

Risk = Likelihood x Severity

		Severity				
		1	2	3	4	5
Likelihood	Tolerate	1	2	3	4	5
	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

Apply judgement

Risk reduction required

Issued

Revision 0

Issued by: ESB Safe Driving Bureau

DRAFT DO NOT ISSUE



DRIVING RISK ASSESSMENT

TRANSPORT & ROAD SAFETY RISK ASSESSMENT CONSIDER THE FOLLOWING 4 AREAS



1. Workplace
2. Journey
3. Vehicle
4. Driver

Workplace: ✓

- Traffic Routes

- Pedestrians

- Signage and Road markings

- Lighting

- Traffic control speed

- Parking

- Housekeeping and Maintenance

- Safe Systems of Work

Consider:

- Review access and egress. Control vehicle and pedestrian access. Ensure drivers have adequate visibility. Eliminate need for reversing where possible. Suitable traffic route construction. Avoid traffic routes close to hazardous areas and doorways. Look for height restrictions and overhead hazards. Keep routes free from obstructions otherwise clearly mark.
- Segregate pedestrians from vehicles. Provide pedestrian crossings with clear visibility. Provide barriers at entrances and exits to prevent pedestrians walking into traffic. Consider limiting or prohibiting vehicles during busy pedestrian times. Ensure pedestrians wear high vis jackets where vehicles are operating. Provide safe areas for drivers while vehicles are being loaded.
- Mark and signpost all vehicular and pedestrian routes both internally and externally. All safety signs must comply with legislation. All signs must be easily understood and use pictograms where possible. Use reflective or illuminated signs where work is carried out outside daylight hours. Place signs in appropriate locations ensuring they are visible at all times.
- Provide appropriate lighting. Ensure lighting does not cause glare to drivers. Beware of light variations from dark to bright areas.
- Put appropriate speed limits for the site in place based on risk assessment. Monitor and enforce the speed limit. Consider traffic calming measures, traffic lights, flashing lights etc.
- Adequate spaces for all vehicles visiting and in use on site. Separate work and private vehicles if possible. Parking should be clearly marked as close as possible to where people need to go. Keep key access routes and fire hydrants clear. Provide drive through parking spaces where possible.
- Regularly clean and maintain route and traffic management furniture. Ensure all surfaces have a good grip. Provide foot scrapers and scrubbers for tyres if necessary. Provide emergency spill kits and spillage procedures.
- Prepare Traffic Management Plan. Advise visitors of Traffic Management Plan. Review layout plan periodically.

Task description: Driving from Head Office to other ESB locations, third party sites and meeting locations throughout Ireland

Names of risk assessors: Tadhg Crowley & Ronan Collier

People affected: 55

Expiry date:
06.06.2012

Ref	Potential Hazard / Risk	NA	T	AJ	RR
1	WORKPLACE				
2	Traffic Routes		X		
3	Pedestrians		X		
4	Signage & Road markings		X		
5	Lighting		X		
6	Traffic Control/ Speed			X	
7	Parking		X		
8	Housekeeping & Maintenance		X		
9	Safe System of Work		X		
10	JOURNEY				
11	Length of Journey			X	
12	Route/ Road Types			X	
13	Scheduling/ Start & Finish Times				X
14	Break Opportunities		X		
15	Weather			X	

Ref	Potential Hazard / Risk	NA	T	AJ	RR
16	Lighting		X		
17	Traffic & Pedestrian Density			X	
18	Parking			X	
19	VEHICLE				
20	Suitability			X	
21	Condition			X	
22	Safety Equipment			X	
23	Safety Critical Information			X	
24	Ergonomic considerations			X	
25	Reversing Aids			X	
26	Crash Resistance			X	
27	Distractions				X
28	Familiarity			X	
29	Purchasing		X		
30	Maintenance: - Driver checks - Statutory inspections - Scheduled maintenance			X	

Ref	Potential Hazard / Risk	NA	T	AJ	RR
31	Loading		X		
32	Safe System of Work			X	
33	DRIVER				
34	Selection & Competency				X
35	Experience			X	
36	Training			X	
37	Use of Contractors	X			
38	Instruction & Information			X	
39	Monitoring & Supervision		X		
40	Fitness & Health		X		
41	Stress & Fatigue			X	
42	Attitude & Behaviour		X		
43	Collision & Enforcement History			X	
44	Safe Systems of Work		X		

Risk Rating: L= Likelihood (0-5), S=Severity (0-5), R= Rating = LxS. If Rating is: 1 to 3 = T (tolerable), 4 to 6 = AJ (apply judgement), 8 - 25 = RR (reduce risk and re-assess).

Ref	Specific Risk	Control Measures	Action by	Risk Rating		
				L	S	R
13	Journey Scheduling/ Start & Finish times	Business travel should be avoided where possible, if travelling is required use public transport where possible. If driving ensure that sufficient time is allowed for the journey and if necessary overnight stays.	Line Managers	1	5	5
27	Vehicle Distractions	Mobile phones should not be used while driving. Pull over periodically to check messages and make calls. Satnav systems should not be interfered with while driving. Pull over to make changes.	All who drive for work.	1	5	5
34	Driver selection & competency	All Drivers must hold full licence. Licence must be checked annually for suitability. All drivers to complete Road Risk to determine their risk rating. Higher risk drivers to get Advanced Driver training.	Line managers	1	5	5

Check that all hazards / risks identified as requiring control measures have been reduced to an acceptable level.

Risk Assessor signatures:

Tadhg Crowley

Ronan Collier

Date: 01/08/2009

REMEMBER TO COMMUNICATE THIS RISK ASSESSMENT TO ALL PERSONNEL AFFECTED

Display at workplace ☒

Ensure this is the up-to-date version by comparing with the electronic copy in the SMS 2.4 Risk Assessment Register

R A No.**CC10-10****Task description:**

Driving from Head Office to oth

Names of risk assessors: Tadhg Crowley & Ronan Collic

Ref	Potential Hazard / Risk	NA	T	AJ	RR
1	WORKPLACE				
2	Traffic Routes		X		
3	Pedestrians		X		
4	Signage & Road markings		X		
5	Lighting		X		
6	Traffic Control/ Speed			X	
7	Parking		X		
8	Housekeeping & Maintenance		X		
9	Safe System of Work		X		
10	JOURNEY				
11	Length of Journey			X	
12	Route/ Road Types			X	
13	Scheduling/ Start & Finish Times				X
14	Break Opportunities		X		
15	Weather			X	

Risk Rating: L= Likelihood (0-5), S=Severity (0-5), R= Rating =

Risk Rating

Ref	Specific Risk	Control Measures	Action by	L	S	R
13	Journey Scheduling/ Start & Finish times	Business travel should be avoided where possible, if travelling is required use public transport where possible. If driving ensure that sufficient time is allowed for the journey and if necessary overnight stays.	Line Managers	1	5	5
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Check that all hazards / risks identified as requiring control measures have been reduced to an acceptable level.

Risk Assessor signatures:

Jadhg Crowley

Ronan Collier

Date: 01/08/2009

Conclusions

- **Driving constitutes a necessary part of our working day and is a significant business risk that must be managed**
- **Safe Driving for business is good business**
- **ESB's objectives**
 - **Zero injuries / fatalities arising from ESB driving activities**
 - **Develop a life skill for our staff and bring safe driving into our homes**
 - **Contribute to the National Road Safety effort**



Q&A Session

Thank You

Slán Abhaile