



Wylfa Newydd Project

6.3.11 ES Volume C - Road traffic-related effects (project-wide) App C2-1 - Driver Stress Calculations

PINS Reference Number: EN010007

Application Reference Number: 6.3.11

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Revision 1.0

Regulation Number: 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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Appendix C2.01 - Driver Stress

Purpose

To assess driver stress for the traffic and transport study area to inform the DCO Environmental Statement for Traffic and Transport.

Driver stress calculations are based on the 48 sections that comprise the study area as explained/ shown in the Traffic and Transport DCO Volume B Chapter. The assessments are based on outputs from the Strategic Traffic Model. Please refer to the table of peak hours shown below, for each assessed year.

CRA-V

Project Title		Project Code		Client	
Wylfa Newydd Project		60PO8077		Horizon Nuclear Power Limited	
Originator	Magda Lopez-Pedrosa	Date	12/12/2017	Revision	7
Checker	Mark Fleming	Date	14/12/2017	Status	FINAL
Reviewer	Hayden Taylor	Date	18/12/2017		

Notes

Spreadsheet Methodology - Driver Stress

- The driver stress methodology and calculations are based on Design Manual for Roads and Bridges: Volume 11, Section 3, Part 9, Vehicle Travellers as described in the Traffic and Transport DCO Volume B Chapter. The tables categorising the levels of driver stress in this environmental assessment for dual carriageways and single carriageways are shown below.

DUAL-CARRIAGEWAY ROADS

Average peak hourly flow per lane, in flow Units/1 hour	Average Journey Speed Km/hr		
	Under 60	60-80	Over 80
Under 1200	High ²	Moderate	Low
1200-1600	High	Moderate	Moderate
Over 1600	High	High	High

SINGLE-CARRIAGEWAY ROADS

Average peak hourly flow per lane, in flow Units/1 hour	Average Journey Speed Km/hr		
	Under 50	50-70	Over 70
Under 600	High ²	Moderate	Low
600-800	High	Moderate	Moderate
Over 800	High	High	High

- The driver stress results for the A5025 Off-line Sections (Sections 10, 13, 16 and 19) are calculated based on a comparison of the existing A5025 against the new bypass section.

A 'Significance' column by year has been added to this appendix. A tick (√) indicates that the section result is significant, whereas a cross (X) indicates that the section result is not significant.

- "√(B)" in the significance column represents a beneficial significant effect.
- "√(A)" in the significance column represents an adverse significant effect.

Peak hours for the driver stress assessment		
Scenario	AM Peak	PM Peak
2016 Baseline	08:00-09:00	17:00-18:00
2020 Ref. Case	08:00-09:00	17:00-18:00
2020 WNP (Without Bypasses)	08:00-09:00	17:00-18:00
2020 WNP (with Bypasses)	08:00-09:00	17:00-18:00
2023 Ref. Case	08:00-09:00	17:00-18:00
2023 WNP	08:00-09:00	17:00-18:00
2033 Ref. Case	08:00-09:00	17:00-18:00
2033 WNP	08:00-09:00	17:00-18:00

