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4 Novemebr 2025

John Berlese
Hutchinson Builders

Application Reference: A006831322
Address of Site: 457 ADELAIDE ST BRISBANE CITY QLD 4000

RE: Information Request Condition 20 Fuel burning (Fire pumps)

To whom it may concern

Each Fire Pump will meet best practice industry standards in accordance with the National Construction Code (NCC), the Building Act 1975 (Qld), the Queensland Development Code (QDC), the *Environmental Protection Act 1994*(Qld), and AS 2941. All reasonable efforts will be made to avoid and/or mitigate potential nuisance (including noise, odours, and emissions) resulting from the fire pump's use. Mitigation strategies will meet the NCC and Australian Standard 2941:2013 effectively ensuring the ongoing validation, certification, and safety-critical operation of the fire pump are maintained, without risking the viability or effectiveness of the fire pump as a 'prescribed fire safety installation' under s 146N the *Fire Services Act 1990* (Qld).

As the project is only in preliminary design the (kW) size and selection of fire diesel pump manufacturer is yet to be determined. The project will require Two (2) x Diesel engines between 210 – 250 kW (Duty / Standby), no relay pump due to AS2419.1:2021 standard being in effect. Typical testing operation for a diesel fire pump under AS1851:2012 is 10min per month per pump and 30min per pump once a year on the annual inspection date. Total run time (Testing) 140 minutes x Two (2) Pumps (280 Minutes Per Year).

Maximum fuel burning capacity will range between 46.7 – 66 litres per hour per pump. At 4.67 Hours run time per pump per year equates to 218 – 308 litres of fuel per pump (Total of 436 – 616 litres). Quantity of fuel stored 420L per pump (Total 820 litres)

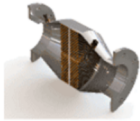
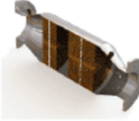
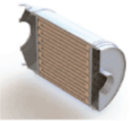
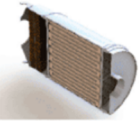
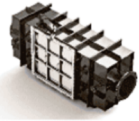
In relation to air quality controls, we can advise that **Tier 3 diesel engines** (or better if and where suitable and / or available) will be sourced for the project to provide best practice efforts in line with the above regulatory requirements.

In relation to third party retrofitted air quality controls (DOC, POC, DPF, CDPF, SCR – Examples Below), there is no specific requirement or DTS pathway under the NCC or relevant Australian Standards for design, installation, or maintenance of such devices on

emergency use fire diesel pumps (Stationary Engines). Due to the potential impact on the operation of the life safety wet fire systems these devices will not be installed unless changes occur to the NCC and relevant Australian Standards AS2941 and AS1851 allowing their use.

COMPARATIVE EMISSIONS TABLE.

Maximum Emissions Reduction*

	 ↓ Diesel Oxidation Catalyst	 ↓ Particulate Oxidation Catalyst	 ↓ Diesel Particulate Filter	 ↓ Catalysed Diesel Particulate Filter	 ↓ Selective Catalytic Reduction
Hydrocarbons (HC)	80%	85%	50%	70%	
Carbon Monoxide (CO)	90%	95%	70%	95%	
Particulate Matter (PM)		50%*	99%*	99%*	
Nitrogen Oxide (NOx)					30-99%

*Up To Maximum Levels - results may vary based on application.

Yours sincerely,



Liam Fordham
 Managing Director
Pipework & Engineering Services Pty Ltd
 Trading as **Firerite Services**