Plant Hazard Statement Report	
Item of Plant: Used “As Is” Generating sets- open and enclosed units	
Person Preparing Assessment: Lance Deighton	**Date:** 5 March 2021

Description of Assessment:
This hazard statement report considers potential hazards that exist when a used generating set (genset), is supplied to a customer on an “As Is” purchase.
EPSA will not be aware of the final installation details or uses of the machine, and therefore may not have addressed all hazards to personnel that may be present. This Assessment is generic and aimed at typical products and hazards that may exist. The purchaser must review this document, and the actual genset as supplied, to identify any specific risks that may exist.

Supplementary Information and References:
Products advertised as 'Used' may have experienced moderate to heavy usage. All used equipment is tested prior to release, however, may not have been tested in line with manufacturer specification. Some items/components may show signs of wear and tear as is common with used equipment. In some instances, accessories may vary from original (for example, software, drawings or manuals may be missing or differ from current configuration).

Asset Condition:

- All Used assets are sold "As Is".
- Assets are used; therefore, inspection is highly recommended prior to sale. Some individual items may show signs of excessive wear and in some instances accessories or inclusions may vary from the standard.
- Equipment may not be compliant to relevant Australian Standards.
- Photos, descriptions and conditions reports (if any) should be used as a guide only. sale should be made based on your own inspection and assessment of the goods.
- EPSA provide no warranty as to the items working condition or suitability for its intended purpose.

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Hazard or Injury Exposure	Details of locations of hazard and how harm could occur	
Entanglement – hair, gloves, clothes, jewellery, cleaning	X	**Rotating components**, including but not limited to: Radiator fan. Ventilation fans (where separate to the radiator fan). Vee belt drives, such as battery charging alternator. Alternator cooling fan Personnel (operator, maintainer, or bystander) injury by contact with rotating parts by limbs, fingers, clothing, etc. Contact with loose items that happen to be directed at rotating components, thereby deflecting them at high speed, and impacting personnel (e.g. eyes, body, etc), or property, causing injury or damage.
Crushing – falling items, component movement, tripping, collapse, moving parts, between plant and structure	X	**Crushing hazards** can exist due to: The equipment falling onto personnel, during operation, handling, transport or maintenance. This includes the possibility of access doors slamming unexpectedly. Close proximity with high velocity airflows (e.g. engine air intakes). Inadequate handling procedures, when transporting/lifting the genset assembly.
Cutting, Stabbing and Puncturing – flying objects, moving parts, rotating parts, sharp items	X	Personnel injuries may be possible due to: The presence of sharp protrusions caused by manufacturing process, whereby sharp edges may exist. Mechanisms that cause edges of components to pass in close proximity to other edges (assimilating a pair of scissors, in operation), either during operation, or for maintenance. Hatches, covers, guards, doors, etc, that are intended to be moved out of their normal position (e.g. for operation or maintenance) and that are not properly retained by their mechanism to hold them in their "open" state, such that they can fall or be blown closed, and strike personnel.
Shearing – caught between moving and stationary parts		
Friction – burnt due to rough moving surface		
Striking – uncontrolled part, disengaged item, mobile plant, machine action		
High pressure fluid – contact due to failure or misuse	X	Cooling system expansion pressure relief.

Electrical – contact with exposed terminals, overloaded circuits, damaged wires, water near circuits, poor insulation non-compliances found to wiring rules AS3000		**Electric Shock or non-compliances** Contact with electrical contacts can cause: Sparks, which can drop onto hazardous materials and cause a fire, Burning of personnel or body parts that form a path for electrical current, Sudden bright light & noise, that can cause shock or uncontrolled movement in personnel (e.g. heart attack, reflex withdrawal of limbs causing striking of adjacent structures or falling, etc), Equipment damage (e.g. battery explosion, melting of conductive parts, excessive heat, etc.). Faults in electrical loads applied to the generating set. Unexpected internal faults within the generating set. AS 3000 Wiring Rules to be rectified by the purchaser or installer upon finding the non-compliance
Explosion – dust, fumes, vapours, pressure vessel,		
Slipping, Tripping & Falling – slippery or uneven floor, poor housekeeping, obstacles, height difference, stairs or ladders, unprotected holes, structure collapse, inadequate access to storage spaces		
Ergonomic – prolonged posture, repetitive movements, excessive force, awkward movements, mismatch with expectations, poor lighting, poor machine feedback, awkward controls or emergency stops		
Suffocation – atmospheric contamination, release	**X**	Fumes- Emissions from the generator in unventilated areas.

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High Temperatures – surface contact, fire or flame	**X**	**Hot components**, including but not limited to: Exhaust piping or manifold (including turbocharger housing, etc). Cooling water pipes, including radiator surfaces, heat exchanger surfaces, etc, as applicable. Charge air pipes, including air-to-air radiator, as applicable. Oil pipes, including any cooler, as applicable. Fuel piping; including any return lines to the fuel tank (via a fuel cooler, on some models). General engine surfaces such as engine block, cylinder heads, supports for hot components, surfaces exposed to solar radiation, etc. Cooling system expansion pressure relief. Engine exhaust (fumes and cooling air) Personnel (operator, maintainer, or bystander) injury by contact with hot parts by limbs, fingers, etc. Transfer of heat to adjacent surfaces, by radiation, which can, in turn, allow contact with personnel or affect sensitive components (such as electronic modules, plastic housings, wire insulation, etc). Burning of personnel due to expansion of hot coolant and ejection
Thermal Comfort – chronic impact of cold or hot temperatures, draughts, humidity		
Exposure to Chemicals – Skin, Breathing, Ingestion, Eyes	**X**	**Chemicals** associated with diesel Engines including, but not limited to: Engine lube oil Fuel Engine coolant Battery acid Paint (newly applied and/or aged & flaking off) Insulation material that may come loose Exhaust fumes.
Exposure to toxic gases or vapours- Inhalation	**X**	Fumes- Emissions from the generator in unventilated areas.
Exposure to Noise – Tonal, Impacting, constant, Machine task	**X**	Prolonged exposure to excessive noise can cause hearing damage. Likewise, exposure to vibration can cause internal injuries to bodies. This can occur due to personnel not having adequate protection, close proximity of the noise source to personnel, and insufficient control of noisy or vibrating plant.

Exposure to Vibration – Whole Body or body extremity		
Catastrophic Failure	**X**	Failure of a rotating engine component due to: Inadequate Fatigue failure Wear & Tear Equipment overload or shock loading Etc., causing explosion or ejection of material or disintegration, with associated risk of striking personnel or causing damage to adjacent equipment. Flammable fluid spillage causing explosion or fire.
Leaks	**X**	Leaked fluids can occur from: Normal maintenance due to fluid changing (e.g. oil changes) Inadequate maintenance (e.g. not draining the crankcase breather collection tank, or not detecting loosening fittings) Spillage during filling Expansion overflows (e.g. radiator pressure relief) Catastrophic failures Spilled fluids can cause injuries due to**:** Personnel slipping Burning, due to hot fluids Fires, due to spillage or accumulation onto hot surfaces Impact from fluid, where leaks are from high-pressure systems.
Miscellaneous		Personnel being locked inside enclosures- accidentally or deliberately. This can cause high anxiety, exposure, or other injuries, depending on how long a person may be locked in. Acoustic enclosures will effectively prevent calls for assistance from being heard, externally. Uncontrolled opening of access doors during transport/ movement of genset packages.

This Hazard Report has been developed specifically for used generating sets, supplied “As Is” by:

Energy Power Systems Australia
ABN 80 055 274 514

Due to the vast range of possible configurations of generating sets, the above hazard identification report is generic in nature. The purchaser, installer, operator and maintainer must take appropriate steps to review the whole genset installation, to address possible safety and compliance issues that may occur in the intended specific application, and under all conditions of operation.

Whilst every effort has been made to identify all of the hazards, it should be recognised that all reasonably practicable hazards have been identified given due consideration to:

- state of knowledge about the plant item
- the availability and suitability of ways to eliminate or control the hazards
- the cost of evaluating, eliminating or controlling the hazard

Consequently, if this plant item is being purchased for use at a place of work, the purchaser is reminded of their obligations to involve and consult with employees in identifying foreseeable hazards, assess their risks and to take action to eliminate or control the risks.

If you have any queries, please contact the EPSA office closest to you. **IF IN DOUBT, ASK.**