Astute Machinery Consultants

# Provision and Use of Work Equipment Regulations Assessment Report

for the

## Rayovac Site Wide PUWER

**Prem Pack 6**

on behalf of

**Ross Bradley | Rayovac Energizer | Washington**

**Proposal Number: 26067**

**Date: 03 Jun 2026**

This document and its contents are copyright of Astute Machinery Consultants. The client shall be entitled to use and copy it only for the work and purpose for which it is intended.

## Client:

**Rayovac Energizer**
2 Stephenson Road
Washington
NE37 3HW

## AMC Consultant:

Jim Davis

## Date of Assessment:

07 Sept 2026

## Revision History:

| | | | |
|---|---|---|---|
| **Initial Draft:** | Jim Davis | **Date:** | 02 Sept 2026 |
| **Reviewed By:** | Alastair Laurenson | **Date:** | 14 Sept 2026 |
| **Issued to Customer:** | Alastair Laurenson | **Date:** | 18 Sept 2026 |

## Project Details:

| | |
|---|---|
| **Project Name:** | Rayovac Site Wide PUWER |

## Machine Details:

| | |
|---|---|
| **Machine Name:** | Prem Pack 6 |
| **Equipment Type:** | Testing and Packaging |
| **Manufacturer:** | SP Technology Limited |
| **Year of Manufacture:** | 2020 |
| **Serial Number:** | APK.01V2 and APL.01V2 |
| **Area:** | Packaging area |
| **Supply Voltage:** | 415v |
| **Pneumatic Pressure:** | 8 Bar |

## Machine Basic Description:

This equipment tests and packages the finished product. This is made up of a test and packaging equipment with their own control systems. This is seen as one machine but is made up of two pieces of equipment.

## Machine Certification:

Both systems are CE marked and the Declarations of Conformity were seen at the time of assessment.

## Scope of the Regulations:

The Provision and Use of Work Equipment Regulations 1998 came into force on 5th December 1998.

In these regulations, the term the '1974 act' refers to the UK Health and Safety at Work Act 1974.

The regulations apply to employers, persons having control of work equipment, persons who supervise and manage work equipment, and the self-employed in respect of the equipment they use at work.

All work equipment used by employees at work falls within the scope of "work equipment". For the purposes of this assessment "work equipment" is generally taken to mean machinery or combinations of machinery (complex assemblies / production lines).

## Definitions:

**New Work Equipment:** Items of work equipment first provided for use from 5th December 1998 will need to meet the requirements of PUWER 98.

**Second Hand Work Equipment:** When existing work equipment is sold by one company to another, and it is brought into use by the purchasing company from 5th December 1998 it becomes new work equipment and must also meet the requirements of PUWER 98.

**Work Equipment:** Any machine, apparatus, tool, or installation used at work.

**Use of Work Equipment:** Any activity involving work equipment such as starting or stopping the equipment, its use, transport, repair, modification, maintenance, and servicing, and cleaning.

**Danger Zone:** Any zone within and/or around work equipment in which an exposed worker is subject to a risk to his health or safety.

**Exposed Worker:** Any worker wholly or partially in a danger zone.

**Operator:** The worker or workers given the task of using work equipment.

## General:

### Regulations 3 – 9

Place defined responsibilities on management to complement the requirements which are covered under the Health and Safety at Work Act 1974 and The Management of Health and Safety at Work Regulations 1999.

These regulations require site policies and procedures to be formulated and implemented to ensure that work equipment is safe for use and adequate measures are in place to ascertain the health and safety of employees whilst at work to the requirements of PUWER 98.

**Regulation 4 requires employers to ensure that:**

- The work equipment is suitable for the intended use.
- They assess the risk to the health and safety of the persons using the work equipment.
- Consider the working conditions in the premises and any additional risk posed using that equipment.

**Regulation 5 requires employers to ensure that:**

- That the work equipment is maintained in an efficient state, in efficient working order, and in good repair.
- Where the machinery has a maintenance log, they must ensure that it is kept up to date.

**Regulation 6 requires the employer:**

To ensure that where the safety of work equipment depends on the installation conditions, to ensure that it has been installed correctly and is safe to operate the work equipment is inspected:

- After installation and before being put into service for the first time.
- After assembly at a new site or in a new location.

The employer must also ensure that work equipment exposed to conditions causing deterioration which is liable to result in dangerous situations, and to ensure that the health and safety conditions are maintained, and that any deterioration can be detected and remedied in good time is inspected at:

- Suitable intervals and:
- Each time that exceptional circumstances which are liable to jeopardise the safety of the work equipment have occurred.
- Any such inspection must be carried out before any equipment leaves the premises or undertaking.
- If the equipment is obtained from another source or supplier, it must not be used unless accompanied by physical evidence from the source or supplier that the last inspection required has been carried out.

**Regulation 7 requires that the employer:**

Must ensure that where the use of work equipment is likely to involve a specific risk to health and safety that:

- The use of the equipment is restricted to those persons suitably trained to use the equipment and specifically given the task of using it.
- Repairs, modifications maintenance or servicing is restricted to persons specifically designated to perform these tasks, and that they have received adequate training to carry out the tasks.

**Regulation 8 requires that the employer and his supervisors and managers of work equipment:**

Must ensure that all persons who use work equipment have available to them adequate health and safety information and where appropriate, written instructions to the work equipment that are comprehensible to all those concerned. The information where appropriate shall include:

- The conditions in which and the methods by which the work equipment may be used.
- Foreseeable abnormal situations and the action to be taken if such a situation were to occur.
- Information from any conclusions to be drawn from experience of using the work equipment.

**Regulation 9 requires that the employer:**

Shall ensure that his supervisors and managers of work equipment, and all persons who use the work equipment have received:

- Adequate training for purposes of health and safety, including methods to be adopted when using the work equipment.
- Any information as to the risks which the use of the equipment may entail.
- All precautions to be taken when using the equipment.

**Regulations 10 – 24.**

**Regulation 10 covers the initial integrity of machines (in most cases), and requires that the employer:**

- Must ensure that an item of work equipment conforms at all times with any 'essential safety requirements', other than requirements which at the time of it being first supplied or put into service in any place which these regulations do not apply.

Regulations 11 – 24 cover the specific essential compliance requirements of machinery in the workplace.

**Summation:**

**The regulations 3 to 24 can be summarised as follows:**

**Management Implemented Health and Safety Policies and Defined Procedures:**

| | |
|---|---|
| Regulation 3 | Application |
| Regulation 4 | Suitability of Work Equipment |
| Regulation 5 | Maintenance |
| Regulation 6 | Inspection |
| Regulation 7 | Specific Risks |
| Regulation 8 | Information and Instructions |
| Regulation 9 | Training |

**Essential Safety Requirements of Machinery:**

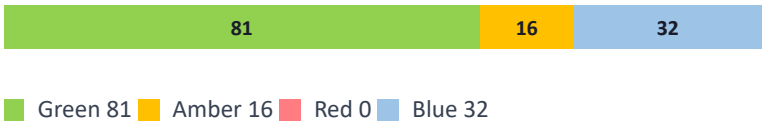
| | |
|---|---|
| Regulation 10 | Conformity with Community Requirements |
| Regulation 11 | Dangerous Parts of Machinery |
| Regulation 12 | Protection against Specific Hazards |
| Regulation 13 | High or Very Low Temperature |
| Regulation 14 | Controls for Starting or Making a Significant Change in Operating Conditions |
| Regulation 15 | Stop Controls |
| Regulation 16 | Emergency Stop Controls |
| Regulation 17 | Controls |
| Regulation 18 | Control Systems |
| Regulation 19 | Isolation from Sources of Energy |
| Regulation 20 | Stability |
| Regulation 21 | Lighting |
| Regulation 22 | Maintenance Operations |
| Regulation 23 | Markings |
| Regulation 24 | Warnings |

*The following checklist assesses the compliance of the work equipment under inspection to the requirements of Regulations 1–24 in accordance with the inspection requirements of Regulation 6.*

| SUPPLY VOLTAGE | PNEUMATIC PRESSURE | MANUFACTURER |
|---|---|---|
| 415v | 8 Bar | SP Technology Limited |
| **YEAR OF MANUFACTURE** | | |
| 2020 | | |

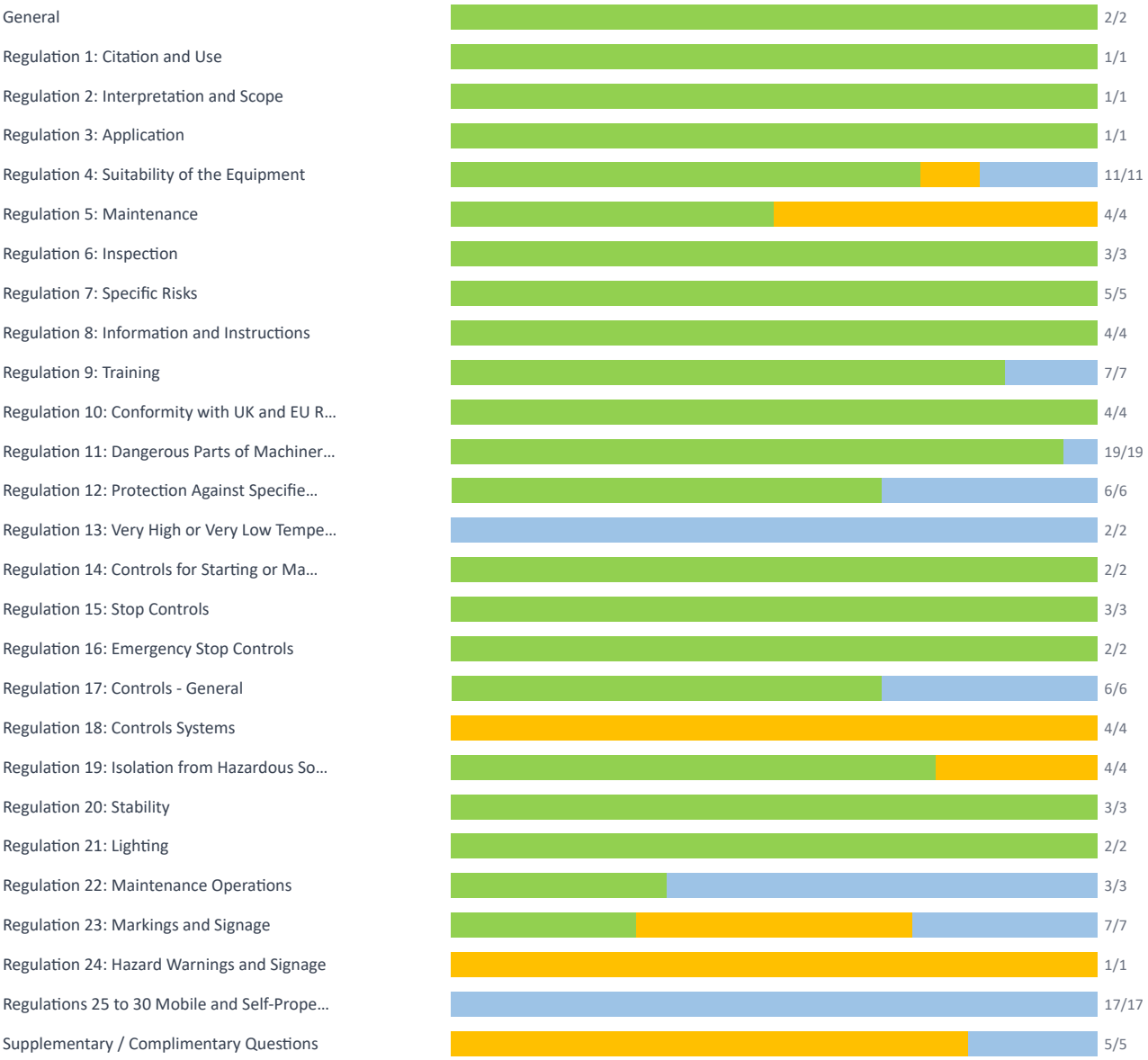
| In Compliance (Green) | Non-Compliant (Red) | Action Required (Amber) | For Consideration (Blue) | Overall Compliance % |
|---|---|---|---|---|
| 81 | 0 | 16 | 32 | **83.5%** |

## STATUS BREAKDOWN




Green 81 Amber 16 Red 0 Blue 32

## PER-REGULATION BREAKDOWN




| General | Yes | No | N/A |
|---|---|---|---|
| 1. Is there a current health and safety policy for the site? | ✓ | | |
| *Comments:* | | | |

| General | Yes | No | N/A |
|---|---|---|---|
| 2. Is there a responsible person for the health and safety policy? | ✓ | | |
| *Comments:*<br>***Green:*** *The site responsible person is Myles Atkins.* | | | |

| Regulation 1: Citation and Use | Yes | No | N/A |
|---|---|---|---|
| 3. Has the work equipment been brought into use by the company or owner / operator after 5th December 1998? | ✓ | | |
| *Comments:* | | | |

| Regulation 2: Interpretation and Scope | Yes | No | N/A |
|---|---|---|---|
| 4. Does the equipment come under the interpretation of work equipment as defined by PUWER 98? | ✓ | | |
| *Comments:* | | | |

| Regulation 3: Application | Yes | No | N/A |
|---|---|---|---|
| 5. Is the equipment specified in the PUWER 98 Regulations Section 3? | ✓ | | |
| *Comments:* | | | |

| Regulation 4: Suitability of the Equipment | Yes | No | N/A |
|---|---|---|---|
| 6. Is the equipment suitable by design, construction, or adaptation for the work it is provided to do in accordance with the manufacturer's specifications and instructions? | ✓ | | |
| *Comments:* | | | |
| 7. Have risk assessments been carried out on all work equipment? | ✓ | | |
| *Comments:*<br>***Amber:*** *This was noted as work in progress* | | | |
| 8. Is the equipment ergonomically well designed, positioned and located to reduce risks to the end user or operator of the equipment? | ✓ | | |
| *Comments:* | | | |
| 9. Have all ventilation requirements been considered and appropriate measures taken? | ✓ | | |
| *Comments:* | | | |
| 10. Have and are noise surveys assessments carried out? | ✓ | | |
| *Comments:* | | | |
| 11. Have and are lighting surveys / assessments carried out? | ✓ | | |
| *Comments:* | | | |

| Regulation 4: Suitability of the Equipment | Yes | No | N/A |
|---|---|---|---|
| 12. Are the confined space regulations applicable, and if so, have they been addressed, and the working procedures adequately documented? | | | ✓ |
| *Comments:* | | | |
| 13. Are there any risks to personnel due to lone working, and if so, have they been addressed and working procedures adequately documented? | | | ✓ |
| *Comments:* | | | |
| 14. Has the control of substances hazardous to health regulations (COSHH) been addressed correctly and are all necessary controls in place? | ✓ | | |
| *Comments:* | | | |
| 15. Are the COSHH assessments readily available to all persons concerned? | ✓ | | |
| *Comments:* | | | |
| 16. Where required under the COSHH assessments, is personal protective equipment (PPE) issued to the relevant personnel and is this adequately controlled? | ✓ | | |
| *Comments:* | | | |

| Regulation 5: Maintenance | Yes | No | N/A |
|---|---|---|---|
| 17. Has a formal maintenance system been implemented, either planned preventative or condition based for safety critical parts of work equipment? | ✓ | | |
| *Comments:* | | | |
| 18. Is the work equipment maintained in efficient working order and good repair? | ✓ | | |
| *Comments:* | | | |
| 19. Is there an authorised persons list stating who is competent to perform maintenance operations? | ✓ | | |
| *Comments:*<br>***Amber:*** *This was noted as work in progress* | | | |
| 20. Have all maintenance personnel received adequate training on health and safety and the safe use of work equipment? | ✓ | | |
| *Comments:*<br>***Amber:*** *This was noted as work in progress* | | | |

| Regulation 6: Inspection | Yes | No | N/A |
|---|---|---|---|
| 21. Are safety critical parts frequently checked and inspected for correct function? | ✓ | | |
| *Comments:* | | | |

| Regulation 6: Inspection | Yes | No | N/A |
|---|---|---|---|
| 22. Are work equipment safety inspection documents available, or is this the first inspection of the equipment? | ✓ | | |
| *Comments:* | | | |
| 23. Is the preventative maintenance log up to date? | ✓ | | |
| *Comments:* | | | |

| Regulation 7: Specific Risks | Yes | No | N/A |
|---|---|---|---|
| 24. Is use of the equipment restricted to those given the task of using it and trained to use it? | ✓ | | |
| *Comments:* | | | |
| 25. Are there safe working procedures in place for maintenance operations? | ✓ | | |
| *Comments:* | | | |
| 26. Is there adequate control over maintenance personnel moving from different departments or areas to ensure they are trained to maintain the work equipment in the other departments or areas? | ✓ | | |
| *Comments:* | | | |
| 27. Is there a permit to work system in place and are the working procedures adequately documented? | ✓ | | |
| *Comments:* | | | |
| 28. Is there a lock out / tag out policy and procedure and matrix in place for the safe isolation of work equipment from all hazardous energy sources? | ✓ | | |
| *Comments:* | | | |

| Regulation 8: Information and Instructions | Yes | No | N/A |
|---|---|---|---|
| 29. Are instruction manuals available for all work equipment where required? | ✓ | | |
| *Comments:* | | | |
| 30. Are there safe working procedures in place for use of the equipment where required? | ✓ | | |
| *Comments:* | | | |
| 31. Are written instructions on the safe use of work equipment available and are they understandable to the persons concerned? | ✓ | | |
| *Comments:* | | | |

| Regulation 8: Information and Instructions | Yes | No | N/A |
|---|---|---|---|
| 32. Are regular meetings held with employee's and / or employee representatives about any matters regarding Health and Safety? | ✓ | | |
| *Comments:* | | | |

| Regulation 9: Training | Yes | No | N/A |
|---|---|---|---|
| 33. Have operators received adequate training on health and safety and the safe use of work equipment? | ✓ | | |
| *Comments:* | | | |
| 34. Have supervisors received adequate training on health and safety and the safe use of work equipment? | ✓ | | |
| *Comments:* | | | |
| 35. Is there an authorised persons list as to who is competent to use the work equipment? | ✓ | | |
| *Comments:* | | | |
| 36. Is there adequate control over operators / personnel moving from different departments or areas to ensure they are trained to operate the work equipment in the other departments or areas? | ✓ | | |
| *Comments:* | | | |
| 37. Are there adequate controls in place for the prevention of young people (under the age of 18) being exposed to unnecessary risks? | | | ✓ |
| *Comments:* | | | |
| 38. Are training records kept, and do they show the requirements for update and review and the person(s) responsible for training? | ✓ | | |
| *Comments:* | | | |
| 39. Is there adequate inductions and / or training for all employees including contractors, temporary employees / casual or agency workers, and visitors? | ✓ | | |
| *Comments:* | | | |

| Regulation 10: Conformity with UK and EU Requirements | Yes | No | N/A |
|---|---|---|---|
| 40. Was the machine first put into service after December 31st 1992? | ✓ | | |
| *Comments:* | | | |
| 41. Was the machine, regardless of age, placed for use in the EC after December 31st 1992? | ✓ | | |
| *Comments:* | | | |

| Regulation 10: Conformity with UK and EU Requirements | Yes | No | N/A |
|---|---|---|---|
| 42. Is the equipment UKCA or CE marked?<br>*UKCA not applicable before 1st January 2022 and is optional from the 1st of August 2023. CE not applicable before 1st January 1993, mandatory after 1st January 1995; and mandatory for equipment first provided in the workplace after 5th December 1998 for PUWER 98.* | ✓ | | |
| *Comments:* | | | |
| 43. Is there a UKCA or CE Declaration of Conformity?<br>*UKCA not applicable before 1st January 2022, and mandatory for equipment first provided in the workplace after 1st January 2023. CE not applicable before 1st January 1993, mandatory after 1st January 1995; and mandatory for equipment first provided in the workplace after 5th December 1998 for PUWER 98.* | ✓ | | |
| *Comments:* | | | |

| Regulation 11: Dangerous Parts of Machinery - Guards and Interlocks | Yes | No | N/A |
|---|---|---|---|
| 44. Are measures taken to prevent access to danger zones? | ✓ | | |
| *Comments:* | | | |
| 45. Can the machine be stopped before a danger zone can be accessed? | ✓ | | |
| *Comments:* | | | |
| 46. Are fixed guards used? | ✓ | | |
| *Comments:* | | | |
| 47. Are other guards or physical safety related control system protection devices used? | ✓ | | |
| *Comments:* | | | |
| 48. If fixed guards or other guards and protection devices are not used, are “push sticks”, jigs, holders or other devices used to reduce risk? | | ✓ | |
| *Comments:* | | | |
| 49. Are the guards, protection devices and other devices provided suitable for the purpose intended? | ✓ | | |
| *Comments:* | | | |
| 50. Are the guards of good construction, sound material, and adequate strength? | ✓ | | |
| *Comments:* | | | |
| 51. Are the guards maintained in an efficient state, efficient working order, and in good repair? | ✓ | | |
| *Comments:* | | | |
| 52. Do the guards themselves create any additional risk to health and safety? | | ✓ | |
| *Comments:* | | | |

| Regulation 11: Dangerous Parts of Machinery - Guards and Interlocks | Yes | No | N/A |
|---|---|---|---|
| 53. Is it possible to easily bypass or disable the guards? | | ✓ | |
| *Comments:* | | | |
| 54. Are the guards secured with appropriate fixings in accordance with the requirements of the Machinery Directive 2006/42/EC and EN 14120? | ✓ | | |
| *Comments:* | | | |
| 55. Are the guards situated at a sufficient distance from the danger zone? | ✓ | | |
| *Comments:* | | | |
| 56. Is it possible to view of the operating cycle of the machinery where guards are in place where such a view is necessary? | ✓ | | |
| *Comments:* | | | |
| 57. Do the guards allow operations necessary to fit and replace parts and for maintenance work, and in doing so do they restrict access so that it only allows access to the work area where possible without dismantling the guard or protective device? | ✓ | | |
| *Comments:* | | | |
| 58. Are appropriate measures adopted to stop people being trapped in the machine? | | | ✓ |
| *Comments:* | | | |
| 59. Where fitted are interlocks positive acting? | ✓ | | |
| *Comments:* | | | |
| 60. Where fitted are interlocks correctly positioned for use, and both secured and located in such a way to actively prevent defeat? | ✓ | | |
| *Comments:* | | | |
| 61. Where fitted do the interlocks function correctly? | ✓ | | |
| *Comments:* | | | |
| 62. Where fitted are all safety related control system actuators, input devices or electronic sensitive devices adequate for their purpose, and are they of the correct type? | ✓ | | |
| *Comments:* | | | |

| Regulation 12: Protection Against Specified Hazards | Yes | No | N/A |
|---|---|---|---|
| 63. Is there protection provided against any article or substance falling or being ejected from work equipment? | ✓ | | |
| *Comments:* | | | |

| Regulation 12: Protection Against Specified Hazards | Yes | No | N/A |
|---|---|---|---|
| 64. Is there protection provided against rupture or disintegration of parts of the work equipment? | ✓ | | |
| *Comments:* | | | |
| 65. Is there protection provided against work equipment catching fire or overheating? | ✓ | | |
| *Comments:* | | | |
| 66. Is there protection provided against the unintended or premature explosion of the work equipment or any article or substance produced, used, or stored in it? | | | ✓ |
| *Comments:* | | | |
| 67. Is there protection provided against the unintended or premature discharge of any article, gas, dust, liquid, vapour, radiation, or other substance which is produced, used, or stored in the work equipment that is hazardous to health? | | | ✓ |
| *Comments:* | | | |
| 68. Where the protection provided does not fully protect the operator, is personal protective equipment (PPE) issued to the relevant personnel and is this adequately controlled? | ✓ | | |
| *Comments:* | | | |

| Regulation 13: Very High or Very Low Temperatures | Yes | No | N/A |
|---|---|---|---|
| 69. Are all touchable hot or cold surfaces adequately guarded? | | | ✓ |
| *Comments:* | | | |
| 70. Where there is the possibility of hot or cold materials or substances being ejected, have adequate measures been applied to minimise the risk? | | | ✓ |
| *Comments:* | | | |

| Regulation 14: Controls for Starting or Making a Change in Operation | Yes | No | N/A |
|---|---|---|---|
| 71. Is there a start control provided to start the work equipment (including restarting after a stoppage for any reason)? | ✓ | | |
| *Comments:* | | | |
| 72. Are controls provided to make a significant change in the operating conditions (speed, pressure, etc.) where after the change it results in a greater risk to health and safety? | ✓ | | |
| *Comments:* | | | |

| Regulation 15: Stop Controls | Yes | No | N/A |
|---|---|---|---|
| 73. Is the work equipment fitted with one or more readily accessible stop controls to bring it to a stop in a safe condition and in a safe manner? | ✓ | | |
| *Comments:* | | | |
| 74. When the hazardous parts of the work equipment have stopped, is the energy supply to the actuators concerned switched off where necessary? | ✓ | | |
| *Comments:* | | | |
| 75. Does the stop control have priority over the start control or any control that changes the operating conditions of the work equipment? | ✓ | | |
| *Comments:* | | | |

| Regulation 16: Emergency Stop Controls | Yes | No | N/A |
|---|---|---|---|
| 76. Is the work equipment fitted with one or more emergency stop controls where required? | ✓ | | |
| *Comments:* | | | |
| 77. Does the emergency stop control have priority over any other all other controls including the normal stop control? | ✓ | | |
| *Comments:* | | | |

| Regulation 17: Controls - General | Yes | No | N/A |
|---|---|---|---|
| 78. Are all control devices clearly visible, identifiable, and appropriately marked by durable means for the environment in which they are located? | ✓ | | |
| *Comments:* | | | |
| 79. Are all control devices located outside danger zones excepting certain controls that are required within the danger zones i.e., robot teach pendants? | ✓ | | |
| *Comments:* | | | |
| 80. Where controls are required in danger zones are they only reduced speed, hold to run, or enabling devices, or are other safeguards in place? | ✓ | | |
| *Comments:* | | | |
| 81. From the main control position, is the operator able to ensure that no person is present in the danger zone? | ✓ | | |
| *Comments:* | | | |
| 82. If it is possible that a person could be in a danger zone, is an audible, visible, or suitable warning given in accordance with regulation 24 whenever the machinery is about to start? | | | ✓ |
| *Comments:* | | | |

| Regulation 17: Controls - General | Yes | No | N/A |
|---|---|---|---|
| 83. Where a person can be in the danger zone is there a means to prevent starting of the work equipment and / or a means of warning the operator of their presence? | | | ✓ |
| *Comments:* | | | |

| Regulation 18: Controls Systems | Yes | No | N/A |
|---|---|---|---|
| 84. Are the control systems safe? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided. In addition, the emergency stop devices appear to be wired in series, which introduces the potential for fault masking, preventing individual device failures from being detected and reducing diagnostic coverage.* | | | |
| 85. Are control systems chosen making due allowance for failures, faults and constraints that can be expected to occur in the planned use of the work equipment? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided. In addition, the emergency stop devices appear to be wired in series, which introduces the potential for fault masking, preventing individual device failures from being detected and reducing diagnostic coverage.* | | | |
| 86. Does the control systems operation minimise any risk to health and safety? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided. In addition, the emergency stop devices appear to be wired in series, which introduces the potential for fault masking, preventing individual device failures from being detected and reducing diagnostic coverage.* | | | |
| 87. Does the control system ensure that when faults or damage to any part of the control system, or a loss of supply of any form of energy does not lead to an increased risk to health and safety - as far as reasonably practicable, are they fail safe? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided. In addition, the emergency stop devices appear to be wired in series, which introduces the potential for fault masking, preventing individual device failures from being detected and reducing diagnostic coverage.* | | | |

| Regulation 19: Isolation from Hazardous Sources of Energy | Yes | No | N/A |
|---|---|---|---|
| 88. Is it possible to isolate the work equipment from all its energy sources? | ✓ | | |
| *Comments:* | | | |

| Regulation 19: Isolation from Hazardous Sources of Energy | Yes | No | N/A |
|---|---|---|---|
| 89. Are the means to isolate energy sources clearly identified by durable means and readily accessible (i.e., located between 0.6 and 1.9m above the service / floor level)? | ✓ | | |
| *Comments:*<br>***Amber:*** *The air isolation points are not identified.* | | | |
| 90. Are all energy isolation devices lockable and are they capable of being locked off and tagged off? | ✓ | | |
| *Comments:* | | | |
| 91. When energy sources are reconnected, are risks to health and safety prevented? | ✓ | | |
| *Comments:* | | | |

| Regulation 20: Stability | Yes | No | N/A |
|---|---|---|---|
| 92. Is the work equipment stable or is it provided with facilities to make it stable? | ✓ | | |
| *Comments:* | | | |
| 93. Are removable /moveable parts of the work equipment stable, or can they be made stable by clamping or otherwise? | ✓ | | |
| *Comments:* | | | |
| 94. If the work equipment is fitted with lifting equipment is it marked with its WLL (SWL), is it secure and stable, and is it inspected under LOLER? | ✓ | | |
| *Comments:* | | | |

| Regulation 21: Lighting | Yes | No | N/A |
|---|---|---|---|
| 95. Is the lighting provided suitable for normal operation of the equipment? | ✓ | | |
| *Comments:* | | | |
| 96. Is the lighting provided suitable for setting and adjustment of the equipment? | ✓ | | |
| *Comments:* | | | |

| Regulation 22: Maintenance Operations | Yes | No | N/A |
|---|---|---|---|
| 97. Is it possible to shut down the work equipment completely to carry out maintenance operations? | ✓ | | |
| *Comments:* | | | |
| 98. If this is not possible, is it possible for such operations to be carried out, outside of the danger zones? | | | ✓ |
| *Comments:* | | | |

| Regulation 22: Maintenance Operations | Yes | No | N/A |
|---|---|---|---|
| 99. If this is not possible, is it possible to take appropriate protection measures? | | | ✓ |
| *Comments:* | | | |

| Regulation 23: Markings and Signage | Yes | No | N/A |
|---|---|---|---|
| 100. Does the work equipment bear the essential warnings and markings where appropriate for stop / start and all other controls and isolators? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC noted that the access points are interlocked to protect persons accessing the danger zone. However, there does not appear to be hazard warning signage warning persons of any residual risks on automated equipment.* | | | |
| 101. Very high and / or very low temperatures and surfaces? | | | ✓ |
| *Comments:* | | | |
| 102. Maximum speed? | ✓ | | |
| *Comments:* | | | |
| 103. Direction of Rotation? | ✓ | | |
| *Comments:* | | | |
| 104. Correct gas, fluid, or substances and direction of flow identification? | | | ✓ |
| *Comments:* | | | |
| 105. Any other relevant markings to prevent mechanical injury such as crushing, entanglement or cutting and severing hazards etc? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC noted that the access points are interlocked to protect persons accessing the danger zone. However, there does not appear to be hazard warning signage warning persons of any residual risks on automated equipment.* | | | |
| 106. Any other relevant markings to ensure health and safety such as pressure, radiation, explosive atmospheres or substances or strong magnetic fields etc? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC noted that the access points are interlocked to protect persons accessing the danger zone. However, there does not appear to be hazard warning signage warning persons of any residual risks on automated equipment.* | | | |

| Regulation 24: Hazard Warnings and Signage | Yes | No | N/A |
|---|---|---|---|
| 107. Are all appropriate warning signs and warning devices installed or fitted to the equipment where necessary? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC noted that the access points are interlocked to protect persons accessing the danger zone. However, there does not appear to be hazard warning signage warning persons of any residual risks on automated equipment.* | | | |

| Regulations 25 to 30 Mobile and Self-Propelled Work Equipment | Yes | No | N/A |
|---|---|---|---|
| 108. Is the equipment designed to only carry the driver or person operating the equipment? | | | ✓ |
| *Comments:* | | | |
| 109. Are any other persons expected to be carried? | | | ✓ |
| *Comments:* | | | |
| 110. Are there signs on the mobile equipment stating the maximum capacity for carrying people? | | | ✓ |
| *Comments:* | | | |
| 111. Are all unauthorised persons prevented from operating the equipment? | | | ✓ |
| *Comments:* | | | |
| 112. Are adequate collision prevention devices fitted? | | | ✓ |
| *Comments:* | | | |
| 113. Are suitable stop devices fitted to the equipment? | | | ✓ |
| *Comments:* | | | |
| 114. For self-propelled equipment are there independent back up braking systems available in the event of failure? | | | ✓ |
| *Comments:* | | | |
| 115. For remote controlled equipment are there automatic braking systems fitted to stop the equipment if it goes out of range of the transmitter or in case of the failure of the remote connection or general failure of the equipment? | | | ✓ |
| *Comments:* | | | |
| 116. Does the equipment have adequate and active speed restriction devices? | | | ✓ |
| *Comments:* | | | |
| 117. Is driver or operator visibility in front and behind the vehicle adequate at all times and are mirrors or sensors fitted to minimise blind spots? | | | ✓ |
| *Comments:* | | | |
| 118. For remote controlled mobile equipment is used is there sufficient audible and visual warning devices in place for others close by the machine? | | | ✓ |
| *Comments:* | | | |

| Regulations 25 to 30 Mobile and Self-Propelled Work Equipment | Yes | No | N/A |
|---|---|---|---|
| 119. Is the equipment stable under normal use conditions i.e., whilst moving, or when stationary for task completion purposes when used in accordance with the manufacturers operating instructions? | | | ✓ |
| *Comments:* | | | |
| 120. Is the driver, operator or any passenger protected from falling off the moving equipment, are restraining systems fitted, and are policies and procedures such as SOP's and SSOW's in place to ensure that restraining devices are used? | | | ✓ |
| *Comments:* | | | |
| 121. Are there adequate Roll Over Protection Structures (ROPS) Falling Object Protection Structures (FOPS) and Tip Over Protection Structures (TOPS) fitted to the equipment to prevent injury to the driver, operator, or any passenger? | | | ✓ |
| *Comments:* | | | |
| 122. Does the driver, operator or any passenger have suitable protection from the moving or rotating parts, or drive shafts fitted to the equipment? | | | ✓ |
| *Comments:* | | | |
| 123. Are drive shafts prevented from contacting the floor in both normal operation and failure scenarios? | | | ✓ |
| *Comments:* | | | |
| 124. Is suitable firefighting equipment carried if required? | | | ✓ |
| *Comments:* | | | |

| Supplementary / Complimentary Questions | Yes | No | N/A |
|---|---|---|---|
| 125. Are there any electrical safety or compliance issues with the equipment with respect to IEC EN 60204-1? | | ✓ | |
| *Comments:*<br>***Amber:*** *AMC has noted that the finished product (cells) have found a way into some of the electrical enclosures. The cells are conductive and could cause a short between conductive circuits if they find their way into components.* | | | |
| 126. Are there any pneumatic safety or compliance issues with the equipment with respect to ISO EN 4414? | | ✓ | |
| *Comments:*<br>***Amber:*** *AMC noted some areas where the pipework and connection points are not fully labelled meaning cross connections could result.* | | | |
| 127. Are there any hydraulic safety or compliance issues with the equipment with respect to ISO EN 4413? | | | ✓ |
| *Comments:* | | | |

| Supplementary / Complimentary Questions | Yes | No | N/A |
|---|---|---|---|
| 128. Are there any safety or compliance issues with the equipment's safety related control system(s) with respect to ISO EN 13849? | | ✓ | |
| *Comments:*<br>***Amber:*** *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided. In addition, the emergency stop devices appear to be wired in series, which introduces the potential for fault masking, preventing individual device failures from being detected and reducing diagnostic coverage.* | | | |
| 129. Are there any other notable issues that are not covered within the scope of PUWER? | ✓ | | |
| *Comments:*<br>***Amber:*** *AMC has noted that use of standard air guns that do not appear to reduce the pressure at the nozzle. Air embolisms chances are increased with this type of device if the operators were to use the blower on themselves.* | | | |

## Conclusion & Findings

**16** issues flagged — **0 Red** · **16 Amber** · documented in **7** hazards

### Hazards Identified — Findings & Recommendations

#### HAZARD 1 · SITE POLICY AND PROCEEDURE · ACTION REQUIRED (AMBER)

**LINKED ISSUES**

- **Q7** — Regulation 4: Suitability of the Equipment
  *This was noted as work in progress*
- **Q19** — Regulation 5: Maintenance
  *This was noted as work in progress*
- **Q20** — Regulation 5: Maintenance
  *This was noted as work in progress*

**Hazard / Finding:**

The site H+S team were reviewing the site wide policy and procedure at the time of assessment.

**Recommended Remedial Action:**

Finalise and formalise all changes and issue updates to all of the site team.

## HAZARD 2 · SAFETY RELATED CONTROL SYSTEMS · ACTION REQUIRED (AMBER)

### LINKED ISSUES

- **Q84** — Regulation 18: Controls Systems
  *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is conf*
- **Q85** — Regulation 18: Controls Systems
  *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is conf*
- **Q86** — Regulation 18: Controls Systems
  *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is conf*
- **Q87** — Regulation 18: Controls Systems
  *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is conf*
- **Q128** — Supplementary / Complimentary Questions
  *AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is conf*

**Hazard / Finding:**

AMC has noted that the Safety-Related Control System appears to operate in a safe manner and is configured in what resembles a Category 3 architecture, implemented via a safety PLC. However, AMC could not determine the resultant Performance Level (PL) because no performance level calculations were provided.

**Recommended Remedial Action:**

Study the Safety Related Control System (SRCS) to consider if fault masking could introduce risks to the equipment's users. Ensure suitable SRCS safety checks are being carried out by the engineering team to monitor system failures.
Ensure components are changed before their specified mean time to failure window.

AMC has noted that Reyovac have upgraded various items of machinery, during which the suitability of the Safety-Related Control System has been brought into question. The upgrades do not appear to have been fully validated and verified in accordance with the requirements of EN ISO 13849-2.
As part of any safety-related upgrade, Performance Level (PL) calculations should be completed to demonstrate that the modified system achieves an appropriate PL for the intended safety functions.

| Standards Referenced | |
|---|---|
| **EN ISO 13849-1** | Safety-related parts of control systems — Part 1: General principles for design |
| **EN ISO 13849-2** | Safety-related parts of control systems — Part 2: Validation |

## HAZARD 3 · AIR ISOLATION POINTS IDENTIFICATIONS · ACTION REQUIRED (AMBER)

### LINKED ISSUES

- **Q89** — Regulation 19: Isolation from Hazardous Sources of Energy
  *The air isolation points are not identified.*

**Hazard / Finding:**

The air isolation points are not identified.

**Recommended Remedial Action:**

Ensure all isolation points are alphanumerically identified and stated on the equipment's LOTOTO documentation.

| Standards Referenced | |
|---|---|
| **EN ISO 4414** | Pneumatic fluid power — General rules and safety requirements for systems and their components |

## HAZARD 4 · HAZARD WARNING SIGNAGE · ACTION REQUIRED (AMBER)

### LINKED ISSUES

- **Q100** — Regulation 23: Markings and Signage
  *AMC noted that the access points are interlocked to protect persons accessing the danger zone. Howev*
- **Q105** — Regulation 23: Markings and Signage
  *AMC noted that the access points are interlocked to protect persons accessing the danger zone. Howev*
- **Q106** — Regulation 23: Markings and Signage
  *AMC noted that the access points are interlocked to protect persons accessing the danger zone. Howev*
- **Q107** — Regulation 24: Hazard Warnings and Signage
  *AMC noted that the access points are interlocked to protect persons accessing the danger zone. Howev*

**Hazard / Finding:**

AMC noted that the access points are interlocked to protect persons accessing the danger zone. However, there does not appear to be hazard warning signage warning persons of any residual risks or automated equipment.

**Recommended Remedial Action:**

Ensure the equipment is displaying the suitable hazard warning signage for crushing and automated equipment warning signage.

| Standards Referenced | |
|---|---|
| **EN ISO 7010** | Graphical symbols — Safety colours and safety signs — Registered safety signs |

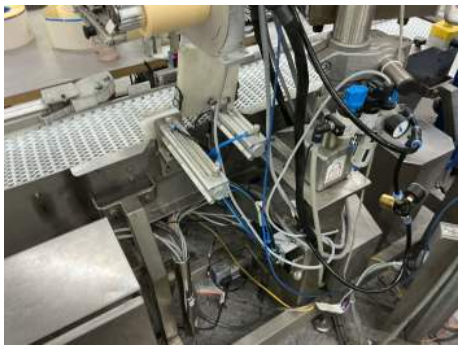
## HAZARD 5 · PIPEWORK IDENTIFIERS · ACTION REQUIRED (AMBER)

### LINKED ISSUES

- **Q126** — Supplementary / Complimentary Questions
  *AMC noted some areas where the pipework and connection points are not fully labelled meaning cross c*

**Hazard / Finding:**

AMC noted some areas where the pipework and connection points are not fully labelled meaning cross connections could result.



**Recommended Remedial Action:**

Ensure all pipework and connection points are labelled and cross-referenced to the schematics

| Standards Referenced | |
|---|---|
| **EN ISO 4414** | Pneumatic fluid power — General rules and safety requirements for systems and their components |

## HAZARD 6 · AIR GUNS · ACTION REQUIRED (AMBER)

### LINKED ISSUES

- **Q129** — Supplementary / Complimentary Questions
  *AMC has noted that use of standard air guns that do not appear to reduce the pressure at the nozzle.*

**Hazard / Finding:**

AMC has noted that use of standard air guns that do not appear to reduce the pressure at the nozzle. Air embolisms chances are increased with this type of device if the operators were to use the blower on themselves.

**Recommended Remedial Action:**

Replace all old version guns with the compliant safe versions that prevent nozzle pressure any higher than 30 psi.

### HAZARD 7 · ELECTRICAL ENCLOSURES · ACTION REQUIRED (AMBER)

**LINKED ISSUES**

- **Q125** — Supplementary / Complimentary Questions
  *AMC has noted that the finished product (cells) have found a way into some of the electrical enclosu*

**Hazard / Finding:**

AMC has noted that the finished product (cells) have found a way into some of the electrical enclosures. The cells are conductive and could cause a short between conductive circuits if they find their way into components. Fires are possible and IP2X protection could be breached by foreign bodies.

**Recommended Remedial Action:**

Ensure the electrical enclosures are fully sealed and do not allow any items to entre the enclosure. Carry out regular panel maintenance to ensure the enclosures are clear of foreign bodies.

| Standards Referenced | |
|---|---|
| **EN 60204-1** | Electrical equipment of machines — Part 1: General requirements |

## Inspector's Overall Conclusion

*(No overall conclusion recorded)*

| Key: | ✓ Yes — Green | ✓ No — Red | ✓ Amber (Yes or No) | ✓ N/A — Blue | ✓ N/A — Plain |
|---|---|---|---|---|---|

# REPORT SIGN-OFF

**ASSESSED BY:**

**Alastair Laurenson**
**CMSE., CECE.**
Director and Senior Consultant
Astute Machinery Consultants Ltd

Date: 28 Sept 2026

**ISSUED BY:**

**Jim Davis**
**MIET., SIIRSM., TechIOSH., AIIAI.**
Director and Senior Consultant
Astute Machinery Consultants Services Ltd

Date: 28 Sept 2026