**Week 3 Lesson 13 SDL Worksheet**

**Task 1**

**Scenario**

*A factory in New Zealand needs to install a new three-phase electrical system and is choosing a suitable round-pin socket.* *The first step is to determine the voltage and current requirements of the three-phase electrical system that will be installed. This includes the number of phases, the voltage level, and the current rating. Based on the electrical system requirements, the factory should choose a suitable round-pin socket that is rated for the required voltage and current and made of high-quality materials to ensure durability and safety. The standard round-pin socket for three-phase electrical systems is a 56 series socket.*

*Next the factory should determine the socket configuration needed for their specific electrical system. This includes the number of pins, the pin arrangement, and any other specific requirements for the socket. The standard socket configuration for three-phase electrical systems is a four-pin socket, with the pins arranged in a circular pattern.) The socket enclosure should be chosen based on the environmental conditions in which the socket will be installed. The enclosure should provide protection against moisture, dust, and other hazards, and should be made of high-quality materials to ensure durability. (The standard socket enclosure for three-phase electrical systems is an IP66 rated enclosure.)*

*Before installing the three-phase electrical system and round-pin socket, the factory should check local electrical regulations to ensure compliance with all safety and code requirements. They may need to obtain a permit or have the installation inspected by a licensed electrician.*

**Questions**

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| 1. What is the standard round-pin socket for three-phase electrical systems in New Zealand? |

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| 1. What factors should be considered when choosing a round-pin socket for a three-phase electrical system? |

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| 1. What is the standard socket configuration for three-phase electrical systems in New Zealand? |

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| 1. What is the standard socket enclosure for three-phase electrical systems in New Zealand? |

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| 1. What should factories do before installing three-phase electrical systems and round-pin sockets in New Zealand? |

**Task 2**

Create a chart that compares and contrasts the advantages and disadvantages of Class I, Class II, and Class III electrical equipment. Provide at least three advantages and three disadvantages for each class.