

Medium

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Regarding Energy Management and Audit, consider the following: 1. A "Preliminary Audit" uses existing data to establish energy consumption patterns. 2. A "Detailed

A

1 and 2 only

B

2 and 3 only

C

1, 2 and 3

Correct

D

1 and 3 only

Correct Answer: C

Full Detailed Explanation

Correct Answer: C - 1, 2 and 3 Quick Concept Explanation A preliminary/walk-through audit uses bills, production data and observations to identify major opportunities; a detailed audit adds instrumented measurements and engineering calculations. Energy intensity normalizes energy use by useful output, such as kWh per unit of production. Key relation: $\text{Energy intensity} = \frac{\text{energy consumed}}{\text{useful production output}}$. Exam focus: Normalize energy use before comparing production periods. Common trap: A detailed audit is not just a more detailed desk review; it includes measurements. Statement-wise Verification Statement 1 - Correct. A "Preliminary Audit" uses existing data to establish energy consumption patterns. A preliminary/walk-through audit uses bills, production data and observations to identify major opportunities Statement 2 - Correct. A "Detailed Audit" involves the use of instruments to measure energy flow in specific equipment. Normalize energy use before comparing production periods. Statement 3 - Correct. The "Energy Intensity" of a product is the ratio of total energy consumed to the total units of production. $\text{Energy intensity} = \frac{\text{energy consumed}}{\text{useful production output}}$. Core Concept Energy management begins by establishing where and how energy is used. A preliminary/walk-through audit uses bills, production data and observations to identify major