

Produce wood fuel in a plant or mill

Overview

This standard covers the skills and knowledge required to produce wood fuel. Wood fuel could include wood chip (including hog fuel), wood pellets, wood briquettes or firewood. This involves maintaining sufficient quantities of raw material during production, following instructions and safety requirements, ensuring wood fuel meets specification and troubleshooting and fixing problems.

It also applies to operating machinery to prepare raw materials prior to wood fuel production.

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Performance criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. check and confirm specified quality and amount of wood is available for production
3. check work area is ventilated to levels appropriate for wood fuel production
4. control dust to acceptable levels following standard operating procedures
5. load materials into machinery as specified in instructions
6. adjust equipment to produce required particle size for wood fuel
7. set up, use and shut down machinery and equipment following manufacturer's instructions
8. monitor processes and ensure machinery is working correctly
9. maintain raw material levels during production following standard operating procedures
10. process wood to produce required amounts of wood fuel following standard operating procedures
11. monitor particle size to ensure end product meets specifications
12. produce required quantities of wood fuel on time
13. deal with any problems with equipment, machinery and materials safely and effectively
14. shut down and isolate equipment safely following manufacturer's instructions
15. remove residual and waste materials into suitable storage, handling them safely to avoid loss and contamination
16. clear and clean machinery or equipment and visually check it has no faults or defects when closing down

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Knowledge and understanding

You need to know and understand:

1. legal duties for health and safety in the workplace and legislation covering your job role
2. relevant legislation and requirements relating to clean wood fuels
3. what happens to wood during each stage of wood fuel production
4. materials used in different stages of wood fuel production
5. where to obtain and how to interpret specifications
6. how to judge quality of raw materials and end products being produced
7. different binding agents and their appropriateness for reclaimed and virgin wood
8. importance of controlling moisture in wood fuel production
9. benefits and drawbacks of air drying, solar drying, forced drying and kiln drying for wood fuel production
10. effects of different drying techniques on cost, time and quantity
11. acceptable particle sizes for wood fuel
12. hazards to people and the environment from using machinery and equipment for wood fuel production
13. problems that can occur when producing wood fuel and the early warning signs
14. hazards to people and the environment that may arise from storing fuel
15. levels of dust that can cause auto ignition or respiratory problems
16. relationship between rewetting, decomposition and fungal spores in wood fuel
17. why it is important to monitor carbon monoxide and carbon dioxide emissions and how to do so
18. interventions applied and by who
19. how to set up equipment and machinery to produce wood fuel
20. start-up checks carried out to make sure equipment and system are fit for use and there are no faults or defects
21. procedures to follow to shut down a wood fuel production process
22. parts of a system and its services that may be isolated
23. relevant safety standards
24. safety, health and environmental procedures for wood fuel production
25. risks associated with the working environment
26. risk control measures in place and how to comply with them
27. personal protective equipment required for wood fuel production
28. appropriate storage facilities for raw materials and wood fuel and how storage facilities can affect quality
29. cross contamination of products and why it is important to avoid
30. how to quarantine products that have been contaminated

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