

## Overview

This standard covers the skills and knowledge needed to treat water for use in the production of spirits.

Process water treatment ensures that high quality water is available for the production of spirits – removing impurities which affect the taste, colour and odour of gin, vodka, whisky and other spirit based drinks.

## Performance criteria

### *You must be able to:*

1. carry out process water treatment in accordance with relevant organisational health and safety requirements, quality standards, environmental standards and Revenue and Customs requirements
2. use personal protective equipment in accordance with organisational requirements and manufacturer's instructions
3. obtain relevant operational instructions and confirm that information received on the current operational status meets organisational requirements
4. carry out checking procedures and take relevant action within limits of your authority
5. confirm the product specification in accordance with organisational requirements
6. supply the plant with the correct quantities of materials in accordance with organisational instructions
7. start up plant in accordance with organisational procedures
8. monitor the water treatment process and maintain to specifications
9. undertake sample checks of water in accordance with relevant organisational specifications
10. discharge the product to the correct location in accordance with organisational requirements
11. identify any variations in organisational specification and quantity and take relevant action within limits of your authority
12. shut down the plant in accordance with organisational procedures
13. identify and take relevant action to deal with faults and any operational issues
14. dispose of waste in accordance with organisational requirements
15. communicate with relevant colleagues when carrying out process water treatment in accordance with organisational requirements throughout the process
16. complete all records in accordance with organisational procedures

## Knowledge and understanding

### *You need to know and understand:*

1. how to carry out process water treatment in accordance with the current legislation and the organisational health and safety, hygiene, environmental, quality standards and instructions, Revenue and Customs requirements
2. the purpose of process water treatment
3. the monitoring of chemical usage when carrying out process water treatment
4. how to ensure energy efficiency during the water treatment process, including boiler, energy readings, bio-mass efficiency
5. the function and operation of process water treatment equipment
6. the different start up and shut down procedures and what may happen if the plant is not started and shut down in the correct sequence
7. the need for checking procedures and what may happen if they are not followed
8. the effect of equipment and services not performing to organisational specification or economic use and the remedial action to be taken
9. the effect of the water treatment process not meeting organisational specification and the remedial action to be taken
10. the monitoring and sampling procedures and what may happen if they are not carried out in accordance with organisational requirements
11. when personal protective equipment is required, how it is used, and what may happen if it is not used
12. how to deal with waste materials in accordance with organisational requirements
13. why it is important to keep records and what might happen if this is not done
14. what should be communicated, to whom and why it should be done
15. the limits of your authority and the consequences of exceeding them

IMPDT20



Carry out process water treatment in the spirits industry

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<b>Developed by</b>	Improve
<b>Version Number</b>	2
<b>Date Approved</b>	31 Aug 2019
<b>Indicative Review Date</b>	31 Aug 2023
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating Organisation</b>	NSAFD
<b>Original URN</b>	IMPDT105
<b>Relevant Occupations</b>	Manufacturing Technologies, Plant and Machine Operatives, Process Operatives, Process, Plant and Machine Operatives
<b>Suite</b>	Spirits Industry Operations
<b>Keywords</b>	Water; Treatment; Distilling; Impurities

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