ULO INC-1	TITLE **Implement procedures for the reception of waste**	EQF 6
Work tasks:	**Implement and manage systems and procedures to receive and handle waste, reject unauthorised waste in accordance with the current legislation and the best practice**	
Weighting:	2	
Learning outcomes: LO 1: Understand and recognise relevant current and best operational practices **LO 2: Understand the techniques available to ensure that operators are aware of and implement correct procedures for the reception of waste** **LO 3: Recognise systems and procedures to implement, in order to deal with waste that require specific handling and the rejection of unauthorised waste**		

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Understand and recognise relevant current and best operational practices		
• Demonstrate an advanced knowledge and refers to relevant guidance and legislation • List the possible air pollution hazards from drums and tanks, and the preventive actions	• Demonstrate advanced skills to develop relevant procedures in line with best practice and current legislation	• Regularly evaluate operational procedures against current legislation and best practice

2. Understand the techniques available to ensure that operators are aware of and implement correct procedures for the reception of waste		
• Demonstrate an advanced knowledge of the procedures & technology applicable for the reception of waste	• Develop effective lines of communication	• Assume responsibility for the implementation of operational procedures for the reception of waste • Establishment and maintain effective lines of communication • Monitors and evaluates work activities to identify good and bad practices
3. Recognise which systems and procedures to implement in order to deal with wastes that require specific handling and the rejection of unauthorised wastes		
• Determine what kind of waste needs special handling	• Demonstrate advanced skills to identify handling techniques for waste types, that must not be taken directly into the storage bunker • Demonstrate the ability to develop a risk assessment system for hazardous wastes	• Monitor systems and procedures for wastes which require specific handling

ULO INC-2	TITLE **Select appropriate management option for waste delivered on site**	EQF 6
Work tasks:	**Identify and manage the waste treatment and disposal of the special waste with the adequate measures regarding to the possible hazard**	
Weighting:	1	

Learning outcomes: **LO 1:Understand how to carry out waste identification procedures**
LO 2: Understand the options for the management of special waste types, and why some options are more ap appropriate than others
LO 3: Understand the size reduction technology and basics of the machine operation
LO 4: Recognise hazard identification techniques which are appropriate to your site

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1) Understand how to carry out waste identification procedures		
• Demonstrate an advanced knowledge to carry out waste identification procedures	• Demonstrate advanced skills to describe different waste types and the associated hazards and risks • Demonstrate advanced skills to determine the correct PPE for handling various waste types	• Monitor and record waste identification procedures • Regularly instruct staff on the correct procedures for waste identification

2) Understand the options for the management of special waste types, and why some options are more appropriate than others		
• Demonstrate an advanced knowledge of the various waste treatment and disposal options • Demonstrate an critical understanding of the waste hierarchy	• Demonstrate advanced skills to describe the fundamental principles of the different waste treatment processes	• Assume responsibility for monitoring the management of waste on site
3) Understand the size reduction technology and basics of the machine operation		
• Demonstrate an advanced knowledge of the operational theory of the shredding machines • Describe the operational process, outlining the main parameters	• Identify the main parameters associated with the operational process	• Assume responsibility for monitoring the loading process of the shredder, and the machine operation • Assume responsibility for ensuring staff are adequately trained in hazard identification
4) Recognise hazard identification techniques which are appropriate to your site		
• Determine the hazards and risks associated with waste types and waste management	• Identify the how to access and use information sources	• Assume responsibility for ensuring staff are adequately trained in hazard identification • Conduct regular hazard identification activities

ULO INC-3	TITLE **Implement systems and procedures to prevent the utilisation and/or further handling of unauthorised waste**	EQF 6
Work tasks:	**Implement and maintain systems to ensure security of the site**	
Weighting:	2	
Learning outcomes: LO 1: Recognise the various means to maintain security of the site **LO 2: Understand and recognise the appropriate means of dealing with unauthorised waste** **LO 3: Understand and recognise the appropriate actions that should be taken in the event of a breach of site security**		

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1) Recognize the various means to maintain security of the site		
• Determine the principals of site security	• Demonstrate advanced skills to prepare plans for site security • Demonstrate advanced skills to prepare and present proposals for improving site security	• Assume responsibility for the evaluation of the security systems available for sites

2) Understand and recognise the appropriate means of dealing with unauthorised wastes		
• Demonstrate an in-depth understanding of the reporting procedures which need to be followed in the case of managing unauthorised wastes	• Demonstrate advanced skills to identifying what constitutes as "unauthorised waste" • Recognise when you may need to seek advice from experts and how to do this	• Has got the responsibility to manage the procedures in the case of unauthorised waste • Is responsible for seeking advice from experts
3) Understand and recognize the appropriate actions that should be taken in the event of a breach of site security		
• Demonstrate an in-depth understanding of the site security	• Demonstrate advanced skills to prepare procedures relating to site security • Demonstrate advanced skills to realise when the situation is out-with your own area of responsibility, and can seek advice from the correct people	• Assume responsibility for site security and instruct staff on their role in site security

ULO INC-4	TITLE **Implement and maintain systems and procedures for traffic management on site**	EQF 6
Work tasks:	**Implement and maintain adequate procedures for the movement of the waste crews**	
Weighting:	2	

Learning outcomes: **LO 1: Recognise the correct procedures to direct waste delivery crews appropriately when arriving on site**
LO 2: Identify and understand the correct procedures for the reception of waste in line with current and best operational practices
LO 3: Identify techniques which can be used to ensure that waste delivery crews comply with organisational procedures

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1) Recognize the correct procedures to direct waste delivery crews appropriately when arriving on site		
• Determine the importance of the safe movement of the waste crews on the site	• Develop procedures for the direction of crews on site, in line with current legislation and best practice	• Assume responsibility for staff conducting the direction of crews • Assume responsibility for the review and amendment of operational procedures in line with current legislation and best practice • Demonstrate responsibility for the regular monitoring of waste reception and delivery crew direction

2) Identify and understand the correct procedures for the reception of waste in line with current and best operational practices		
• Demonstrate an advanced knowledge of the key aspects of waste reception procedures	• Obtain feedback from staff and crews on the procedures for the direction of waste delivery crews	• Assume responsibility for the reception of waste and ensure they are incorporated into the waste reception procedures • Assume responsibility for reviewing and amending waste reception procedures in line with current legislation and best practice
3) Identify techniques which can be used to ensure that waste delivery crews comply with organisational procedures		
• Determine current legislation, relevant to the control of waste delivery crews	• Establish effective lines of communication • Determine the actions to take in the event of a breach in procedure by waste delivery crew	• Assume responsibility for waste delivery crews and monitor their activities regularly, to ensure compliance

ULO INC-5	TITLE **Implement and maintain systems and procedures for the combustion process**	EQF 6
Work tasks:	**Ensure the waste preparation for feeding, and the burning process is in line with the technology specifications**	
Weighting:	2	

Learning outcomes: **LO 1: Understand the treatment of waste in cement kilns and its emissions to air according to the relevant regulation (EU Directive 2000/76/EC)**
LO 2: Understand the mixing and loading process as well as the techniques applicable to the waste preparation in the storage bunker and transfer to the kiln
LO 3: Understand the burning process, and the relating safety regulations
LO 4: Understand the process monitoring and control systems

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Understand the treatment of waste in cement kilns and its emissions to air according to the EU Directive 2000/76/EC		
• Underline the most important points of the relevant regulation (EU Directive 2000/76EC)	• Explain the main articles of the regulation from technical aspects	• Manage the technology according to the regulation
2. Understand the mixing and loading process as well as the techniques applicable to the waste preparation in the storage bunker and transfer to the kiln		
• Demonstrate an in-depth knowledge of the	• Determine the safety measures to avoid	• Assume responsibility for the regular review

waste operational technology, in order to ensure operation meets the energy and heat requirements and any deviations from expected performance are identified quickly	the burning of waste in the storage bunker	and amendment of the operational procedures relating to waste reception and mixing in the storage bunker • Assume responsibility for monitor the feeding process of the waste to the kiln and the adequate air supply for burning
3. Understand the burning process, and the relating safety regulations		
• Define the main parameters relevant to the burning process • Identify the main burning features of different materials • Determine the impact of variability of physical and chemical parameters of feedstock fuel on the combustion and purification processes	• Demonstrate advanced skills to identify the safety measures and develop and regularly review the safety plan • Assign responsibilities to ensure the required effective and safe operation • Demonstrate advanced skills to define the main operational parameters for controlling the burning process	• Assume responsibility for the continuous supervision and education of the staff
4. Understand the process monitoring and control system		
• Outline the monitoring and control system including the start and stop of the thermal treatment technology • List the main operational points of the technology and the control parameters that have to be continuously monitored	• Make a flowchart of the thermal technology and mark the control points and the parameters that must be monitored • explain the actions to take when a technology parameter is inadequate • prepare a detailed crisis intervention plan for the case of emergency	• Assume responsibility for the process monitoring and control

ULO INC-6	TITLE **Implement and maintain systems and procedures for handling the combustion residues**	EQF 6
Work tasks:	**Ensure the bottom and fly ash delivery is in line with the technology specifications**	
Weighting:	2	
Learning outcomes: LO 1: Understand the originate and the main components of the residues LO 2: Recognise the process for managing the combustion residues, and understand the operation of the technical equipments LO 3: Understand the further handling and the possible utilization technologies of the residues		

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Understand the technology regarding to the originate and the main components of the residues		
• Demonstrate an in-depth knowledge of the different kind of the burning residues • List the hazardous materials that the residues contain	• Describe the technology for collecting the burning residues safely	• Continuously manage the control process for handling the residues
2. Recognise the process for managing the combustion residues, and understand the operation of the technical equipments		
• Determine effective technologies applicable to manage the process residues • Underline the applied methods for the metal parts selection	• Describe the operational procedures relevant to the management of process residues (e.g. bottom ash delivery) • Demonstrate advanced skills to explain the methods and importance of the selection of	• Continuously manage the residues logistic process on the site

	the technical components	
3. Understand the further handling and the possible utilization technologies of the residues		
• Underline the disposal technology of the harmful fly ash • List the possible further application of the bottom ash	• Describe in detail the establishment and the operation of a landfill for fly ash • Explain the advantages of the further application of the bottom ash	• Manage the logistic process of the residues from the site

ULO INC-7	TITLE **Manage the procedures for the energy recovery process**	EQF 6
Work tasks:	**Ensure the heat and electric power production process efficiency and safety**	
Weighting:	2	

Learning outcomes: **LO 1: Understand the technology, ensure that engineers and operators are aware of and implement correct procedures for the heat production process**
LO 2: Understand the technology, ensure that engineers and operators are aware of and implement correct pro cedures for the electric power production process
LO 3: Understand and recognise the appropriate actions that should be taken in the event of a breach of site security

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Understand the technology, ensure that engineers and operators are aware of and implement correct procedures for the heat production process		
• Demonstrate an in-depth level of knowledge of the heat from waste production technology	• Define the main operational parameters and measures for controlling the heat production process • Assign responsibilities, ensuring the required effective operation	• Assume responsibility for implementing continuous training of the staff in order to ensure safe and effective heat production
2. Understand the technology, ensure that engineers and operators are aware of and implement correct procedures for the electric power production process		
• Demonstrate an in-depth level of	• Define the main operational parameters	• Implementing continuous training of the staff

knowledge of the electric power from waste production technology	and measures for controlling the electric power production • Assign responsibilities, ensuring the required effective operation	in order to ensure safe and effective electric power production
3. Understand and recognise the appropriate actions that should be taken in the event of a breach of site security		
• Demonstrate an advanced knowledge of site safety systems	• Demonstrate advanced skills to prepare procedures relating to site security • Realise when a situation is out with own area of responsibility, and seek advice from the correct people	• Take responsibility for site security and instruct staff on their role in ensuring safety • Assume responsibility for taking measures in the case of a breach in site security

ULO INC-8	TITLE **Manage the procedures for the flue gas cleaning and comply with the emission regulation**	EQF 6
Work tasks:	**Ensure that the process inputs, outputs and residues comply with emission regulations, through the use of effective flue gas cleaning technology**	
Weighting:	2	

Learning outcomes: LO 1: Have appropriate knowledge regarding the cleaning process and the input and output materials
LO 2: Understand the cleaning technology, the procedure and the process parameters
LO 3: Understand the applicable regulations and monitoring compliance

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Have appropriate knowledge regarding the cleaning process and the input and output materials		
• Outline the principles of an effective logistic process • Define the applied materials for the cleaning technology • Outline the delivery, storage, and handling of the raw and used materials	• Identify and assign responsibilities, ensuring adequate logistics of input and output materials • Prepare a sketch and explain the cleaning technology, and mark the input and output materials	• Take responsibility for supervising the logistic process relating to input and output materials.
2. Understand the cleaning technology, the procedure and the process parameters		
• Demonstrate an in-depth level of knowledge of the available cleaning technologies	• Identify responsibilities to ensure the efficiency of the process • Define the control parameters and the	• Take responsibility for the regular education of the staff and to supervise the cleaning technology

• Outline the systems for controlling and improving the quality of combustion (reducing emissions of pollutants, removing acid gases (hydrogen chloride, sulphur, and dioxide), removing nitrogen oxides, removing dioxins and filtering out particulates and particle-bound pollutants such as many heavy metals.	measuring technology • Describe the actions to take in the event of any deviation of the system operation	
3. Understand the applicable regulations and monitoring compliance		
• Determine the regulations and guidance applicable to the plant operation	• Provide examples of corrective measures to ensure compliance	• Assume responsibility for keeping in contact with the authorities and the public through effective communication • Take responsibility for implementing effective training

ULO INC-9	TITLE **Implement and maintain systems and procedures for site process management**	EQF 6
Work tasks:	**Develop schedules for the movement of materials and the management of the site operation, in accordance with the plans**	
Weighting:	2	

Learning outcomes: **LO 1: Understand how to develop appropriate and effective schedules for the movement of materials/energy**
LO 2: Identify the ways in which materials can be effectively managed on plant
LO 3: Understand how to develop and maintain appropriate contingency plans, in line with potential disruptions to plant operations, to minimise impact on work activities
LO 4: Understand the importance effectivelycommunicating instructions for safe operations

Knowledge *(assimilation of knowledge throughout learning)*	***Skills*** *(Ability to apply knowledge)*	***Competences*** *(Measure of responsibility and autonomy; ability to use knowledge, skills, social abilities)*
1. Understand how to develop appropriate and effective schedules for the movement of materials/energy		
• Determine how to gather and use information to improve the effectiveness of new or existing schedules	• Determine how to monitor and record material/energy movement	• Take responsibility for preparing schedules to enhance operational performance relating to the movement of vehicles on and off the site

2. Identify the ways in which materials can be effectively managed on plant		
• Demonstrate an advanced knowledge of how to keep waste management technologies up to date	• Evaluate waste management technologies relevant to the site • Demonstrate advanced skill on how to access and use useful and reliable information	• Take responsibility for the management of the site operation
3. Understand how to develop and maintain appropriate contingency plans, in line with potential disruptions to plant operations and to minimise impact on work activities		
• Demonstrate an advanced knowledge of contingency planning	• Illustrate contingency situations by giving examples	• Instructing staff • Assume responsibility for ensuring that staff are aware of and understand the contingency plans that are in place
4. Prepare a communication plan applying up-to date methods and technologies for the dissemination of the information regarding to the safe operation of the site		
• List applied up-to-date methods for sharing the most important operational results with the public	• Compile a communication plan developing methods of dissemination (for example organization of public workshops; on line publication of the results; encouragement for the establishment of citizens-bodies allowed to freely check the operation data, etc). • Prepare a contingency plan to ensure there is immediate notice given of any emission, leak or other catastrophic event, and tie with local emergency services.	• Manage the communication to the public and a continuous tie with local emergency services.