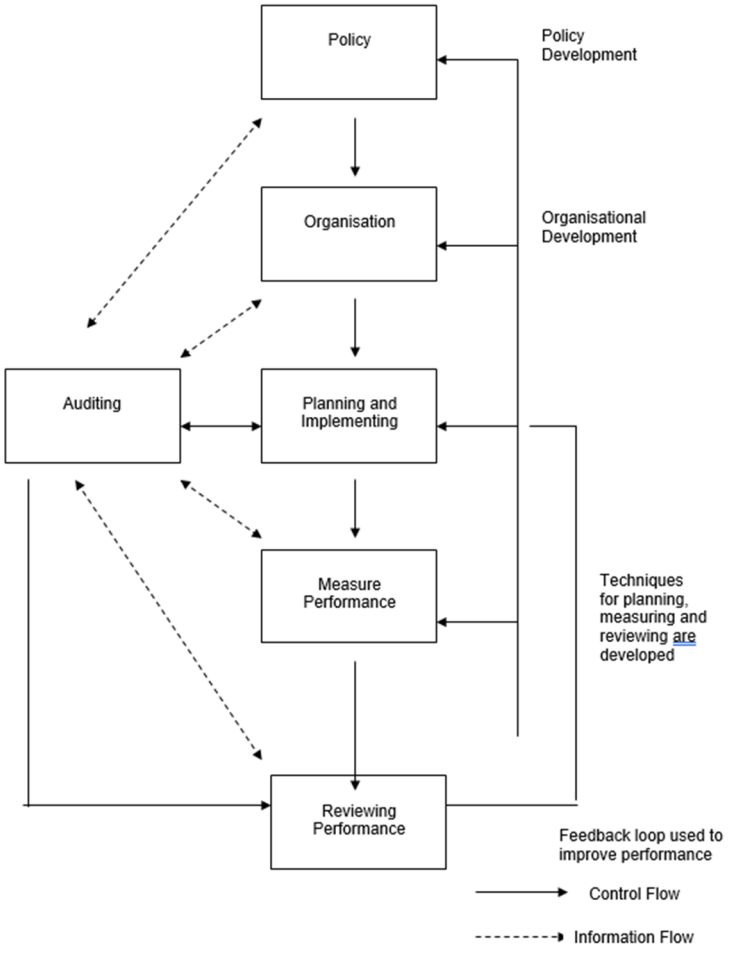
Environmental Management System (EMS) Summary

1. This EMS summary has been prepared in support of an application to transfer and vary Environmental Permit number EPR/ZP3831DX (the permit) for the Ash Processing Plant at Fiddler's Ferry, Warrington Road, Warrington, WA5 2UT (the site) operated by Titan Cement UK Limited (Titan). A copy of the full EMS will be held at the site and will be available for inspection once the site is operational following the issue of the varied Environmental Permit for the site.

2. This summary explains how the operations to be undertaken at the site under the Titan EMS are consistent generally with the Environment Agency (EA) guidance presented at https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#what-to-put-in-your-management-system-and-how-to-organise-it. The headings from the EA management system guidance (the EAMS guidance) are reproduced for clarity.

3. The EMS follows the Plan Do Check Act Cycle underpinned by the Company Environmental Policy as illustrated below:



What to put in your management system and how to organise it

4. The EAMS guidance states that "*You need to be able to explain what happens at each site and which parts of the overall management system apply*."

5. Site activities at Fiddler's Ferry are detailed in the EMS. The following site specific risk assessments and management plans, which will be submitted to the EA as part of the application to vary the Environmental Permit at Fiddler's Ferry, will be included in the EMS:

- Nuisance and Environmental Risk Assessment for the operation of the Ash Processing Plant
- Dust and particulate matter emissions management plan (DEMP) for the operation of the Ash Processing Plant
- Best Available Techniques Assessment
- Technical Description of the operation of the Ash Processing Plant
- Quantitative Air Quality Assessment using dispersion modelling

6. These documents are referred to later in this summary document, where relevant, as their contents address a number of the aspects specified in the EAMS guidance.

How to develop your management system

7. The EAMS guidance states that "*You can develop and maintain your own management system or use an environmental management system scheme or standard*."

8. Titan uses an internal management system which is not certified to a specific accreditation.

Prepare your site infrastructure plan

9. The EAMS guidance states that "*Your management system must include a plan of your site, drawn to scale. The plan must highlight where you do the activities covered by your permits*" and goes on to describe the aspects which must be shown for sites with waste installation permits such as Fiddler's Ferry.

10. The documents and management plans described under paragraph 5 above, which form part of the site management system, include a range of site infrastructure plans relevant to the various aspects identified through the risk assessment as those site specific aspects which require control measures for example air quality and dust. The site infrastructure plans, together with other relevant plans and documentation prepared in support of the application to vary the Environmental Permit provide all of the necessary details specified in this section of the EAMS guidance including buildings, treatment infrastructure, storage silos, emission points and site access routes.

Site operations

11. The EAMS guidance states "*Break down the operations that will be carried out on your site … into a list of activities and processes, for example unloading waste, storing waste,…List the steps you will take to prevent or minimise risks to the environment from each activity or process and type of waste. Be specific about the actions you will carry out to do this*."

12. The technical description documents, management plans and risk assessments described under paragraph 5 above, which form part of the site management system, describe the operations and activities that will be undertaken at the site including details of waste types and storage arrangements and provide details of the control measures which will be implemented to minimise the risks to the environment from the activities.

13. The EMS will be deployed effectively through the company's management organisation and includes details of the roles and responsibilities of key personnel including Managers and all employees. Whilst the policy sets the direction for activities, an organisation (resources, structure, culture, etc.) is needed to create a robust framework for management activity (i.e. deliver the policy goals). It is also required to detail the responsibilities and relationships which deliver improved performance. The objective of the organisation is to provide structures and processes which:-

- establish and maintain management control across site;
- promote **co-operation** between individuals, management and safety reps, resulting in a collaborative approach to health and safety management;
- ensure effective **communication** of necessary information
- ensure the **competence** of employees for the tasks and roles to which they are assigned.

Control - There is a clearly defined structure of roles, responsibilities and reporting relationships. It is also a key responsibility of the management team to ensure there are adequate resources available to fulfil the required obligations and ensure progress towards the long term objectives.

Co-operation - Individual employees, safety reps and management collaborate through plant Safety Meetings, which address operation issues and concerns as well as providing a review/audit forum for previous performance. Employees are encouraged to submit ideas to improve site operations and HSE issues.

Competence - For all roles appraisal/selection criteria are applied. Performance will be monitored on the job.

Site and equipment maintenance plan

14. The site management system includes maintenance schedules and records for all key site infrastructure and mobile plant which are maintained according to the manufacturer's recommendations.

Contingency plans/Accident prevention and management plan

15. It is essential to measure both in active and reactive terms the performance of the EMS. The measurement of performance in these ways has a number of benefits:-

- meeting legal obligations;
- identification/elimination of risks/hazards;
- reinforces commitment to HSE (management/employee);
- develops a positive HSE culture.

16. Active Monitoring Systems

Active monitoring systems monitor the design, development, installation and operation of management arrangements, risk control systems and workplace precautions.

Some of the examples of active monitoring within the site are:-
- Safety Audits;
- Equipment/Instrument Checks;

17. Reactive Monitoring Systems

Reactive monitoring systems are triggered after an event and include identifying and reporting:-

- injuries and cases of ill health;
- other issues, such as damage to property;
- incidents, including those with potential to cause injury, ill health or loss;
- hazards;
- weakness or omissions in performance standards.

18. The risk assessments and aspects and impacts analysis include contingency plans which will minimise the impact on the environment in the event of breakdowns, enforced shutdowns and other changes in normal operations.

19. The ERA prepared as part of the application to vary the Environmental Permit at Fiddler's Ferry will include consideration of accidents including spillages, flooding, fires etc and the management plans developed for the site include details of the measures to minimise the potential for accidents and the procedures that will be followed in the event of an incident.

A changing climate

20. Consistent with the requirements of EAMS guidance, climate change adaptation planning will be integrated into the EMS. Consistent with the criteria set out in the guidance, the adaptation planning includes consideration of higher average temperatures (in summer and winter), more heat waves and hot days, rising sea levels, changes in rainfall and intensity and an increased frequency of storms and provides details, where relevant of the mitigation that will be employed to address these aspects. A Climate Change Adaptation Risk Assessment (CCARA) will be undertaken for Fiddler's Ferry Ash Processing Plant to identify mitigation to plan for and minimise the potential of future impacts from climate change. A copy of the CCARA will be held in the EMS.

Complaints procedure

21. Details of the complaints procedure are set out in the action plans specified in the management plans supporting the application to vary the Environmental Permit. The action plans include details of how complaints are investigated and provides examples of the actions that are taken to address complaints.

Managing staff competence and training records

22. The EMS includes details of the roles and responsibilities of key personnel (see also point 13 above). The responsibilities include:

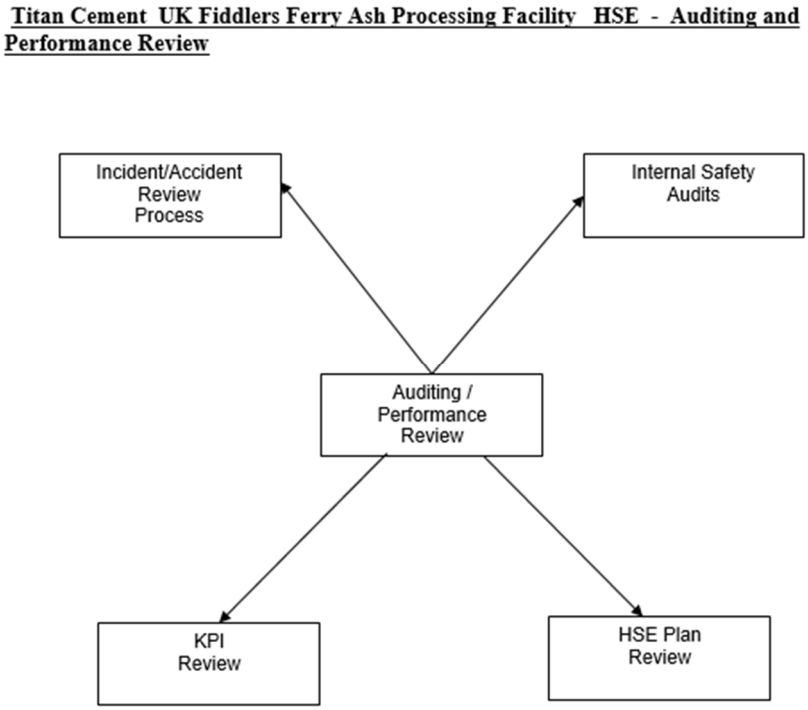
- To highlight areas where training/certification is required to meet the standards imposed by Legislation, Approved Codes of Practice, or EA guidance.
- Provide written instructions, procedures and/or method statements outlining potential hazards and precautions, and ensure they are complied with.
- Ensure all staff and contractors are suitably trained to carry out the prescribed task and that the necessary certificates of competence are in force and appropriate.

Keeping records

23. All documentation required to be retained under the Environmental Permit is retained for the necessary time period including Duty of Care documentation. The EMS includes copies of the Environmental Permit, the documents which comprise operating techniques of the permit and copies of the management plans and operating procedures relevant to the activities undertaken at the site.

Review your management system

24. The flow diagram below sets out the auditing and review process which is the basis on which continual improvement is targeted.



Site closure

25. This aspect of the EAMS guidance is relevant only to sites which hold a permit for a landfill or category A mining waste facility hence is not relevant to the Fiddler's Ferry Ash Processing Plant site.

Make sure people understand what you do

26. Awareness of the site management system and the aspects relevant to the specific roles is a key aspect of the staff training. Staff have access to and will be trained appropriately to understand relevant sections of the management system that deal with activities they carry out.