## (2) Check List – Pre-treatment Facility

### I. Activity

- ✓ What is the general condition of the facility? (visible spillages, strong odour, intensive dust layer, rusted vessels and pipes)
- ✓ Is a pre-acceptance procedure done to assess whether the waste is suitable for storage and treatment at the facility?
- ✓ Is the accepted waste type (EWC) in line with the permit?
- ✓ How is the incoming waste identified?
- ✓ Is sampling performed by qualified persons and in line with corresponding standards?
- ✓ Are pre-acceptance information compared with the incoming waste?
- ✓ Is the available storage capacity checked before accepting the waste?
- ✓ Are records kept for waste received for utilization/recovery?
- ✓ Are records kept for waste gathered?
- ✓ Does the balance of waste recovered/utilized and waste generated in the process match the balance of waste on stock (stored)?
- ✓ Are the records kept on valid forms?
- ✓ Is the waste flow documented and traceable?
- ✓ Are the waste transfer cards filled out correctly, e.g. stating the type of waste, quantity of waste and the registration number of vehicles?
- ✓ How is the proper treatment of accepted waste controlled?
- ✓ What are the different treatment throughputs of the facility and is it in line with the permit?
- ✓ Are treatment processes documented? (e.g. throughput, waste type specification)
- ✓ Are criteria for rejection of waste set?
- ✓ Is unacceptable waste isolated and stored in a quarantine area before its removal?
- ✓ Are unaccepted waste deliveries documented and reported?
- ✓ In case hazardous waste is treated, is additional information such as hazardous waste category, names and maximum concentration, waste composition, calorific value, etc. available?
- ✓ Is the amount of annually treated hazardous waste in line with the permit?
- ✓ Does the consumption of used other materials (service media) meet the quantities defined by the permit?
- ✓ Are Material Safety Data Sheets (MSDS) of other materials used at the facility available?
- ✓ Are records kept for the waste generated?
- ✓ Is the produced waste analysed? (e.g. leaching behaviour of stabilised waste)
- ✓ What happens with the produced waste? (also including those wastes unintentionally produced, e.g. activated carbon from the abatement technology)
- ✓ Are documents available showing the further use of the treated material?
- ✓ Are energy consumption, material consumption and emissions in accordance with the BAT BREF document “Waste treatment Industry” and the permit?

### II. Abatement Technologies

- ✓ Which abatement technologies are installed?
- ✓ Are the installed abatement technologies sufficient for the facility emissions?
## (2) Check List – Pre-treatment Facility

### III. Facility Development

- Are all installations listed in the permit?
- Are the capacities of the installations in line with the permit?
- Are all treatment technologies in line with the permit?
- Are the storage conditions as stated in the permit?
- Do storage areas have sufficient capacity?
- Is the drainage infrastructure sufficiently large to contain all possible contaminated run-offs?
- Are the storage areas separated for different waste types to avoid mixing?
- Are waste types stored regarding to their compatibility?
- What is the condition of tanks, drums, vessels and other containers at the storage area?
- Is periodic maintenance of installations recorded and sufficient?

### IV. Handling

- What are spillage procedures in case of leachate?
- Are the employees trained regarding hazardousness and proper personal protective equipment of the different waste types?
- Are proper tools for opening, holding, clamping, lifting and rotating devices in place?
- Are material losses and emissions documented?
- Are emissions into air, soil and water prevented or kept as low as possible? (especially at areas for unloading, blending, mixing, opening and emptying)
- Are other materials used for the treatment of waste?
- Are MSDS available of the other materials?
- What is the quantity of the used other materials?
- Can used, empty containers be a source of emissions? Are they cleaned before emissions occur due to evaporation or rinsing out?
- What happens to water used for cleaning?
- Are the plants or equipment containing hazardous substances as PCB, Asbestos or others periodically checked?

### V. Dust/Fine Particulates Control

- Are operational procedures/working plan in place, which set out the design, operational considerations and requirements to minimise and control potential nuisance from dust?
- Are detailed procedures of the receipt and handling of hazardous waste (incl. asbestos) formulated and applied in practice (in case the facility is permitted to accept such wastes)?
- Is the effectiveness of the design and operational provisions regularly monitored?
- Is dust monitoring performed at specified locations on and off site?
- Are water sprinklers operated in waste handling areas?
- Are dust extraction systems, to remove dust and particulates from working areas, used?
- Are all relevant areas (e.g. main transfer station) as well as roadways regularly swept?
(2) Check List – Pre-treatment Facility

VI. Odour Control
- Are wastes known to be malodorous not accepted?
- Are appropriate procedures developed and implemented for dealing with malodorous waste?
- Are waste delivering/removing vehicles enclosed or covered?
- Is the biodegradable waste removed from the premises as soon as practicable (e.g. within 48 hours of its arrival)?
- Are odour neutralising sprays and additives used before onward transport?
- Are appropriate air filtration systems with bio-filter to remove odour used?
- Are all waste handling areas regularly inspected and monitored by facility staff?
- Is odour monitored at specified locations on-site and off-site (e.g. sensitive areas, settlements)?
- Is compacting or treatment of malodorous waste carried out in an enclosed area?

VII. Noise & Vibration Control
- Is the plant and equipment adequately maintained to mitigating noise levels?
- Is equipment selected that has low noise emission levels (confirms with EU Noise Standards)?
- Is it ensured that noisy equipment is not used for long periods of time and at inappropriate times (e.g. defined in operational procedures)?
- Are patterns of waste delivery monitored in order to ensure that vehicle movements are avoided during specific periods?
- Are site roads maintained to reduce noise and vibration from vehicle movement?
- Are noisy plants and equipment located away from residential areas and enclosed if possible?
- Is regular monitoring of noise levels carried out?
- Are noise related complaints recorded and investigated?
- Are noisy activities carried on indoors and are building doors kept closed?

VIII. Emissions to water
- Does the supplied water undergo treatment? 
- Is the deep water well lining suitable protected, in case of water from own sources, so that rainwater does not penetrate the well? 
- Is rain water collected? Does the quantity of used water match with the permit?

IX. Emissions into air
- How is the quantity of pollutants released into air recorded (continuous measurement, periodical measurement of the quantity of consumed raw materials and fuel)?
- Is the type and quantity of introduced pollutants compliant with binding detailed legal requirements, e.g. regulations?
- Is the type of introduced pollutants in compliance with binding emission standards?
- Is the release of pollutants monitored in line with stipulations of the permit and/or in line with binding detailed legal requirements, e.g. regulation?

X. Emissions into soil
- Is the base and drainage system of the facility impermeable for the existing waste types?
- Are the protections for emissions into soil sufficient and in good condition?
(2) Check List – Pre-treatment Facility

**XI. Environmental management**
- Is an environmental management system in place?

**XII. Special focus on Sorting/Separation facilities**
- Special focus should be taken regarding the waste flow traceability and that the corresponding mass flow in- and outputs are consistent

**XIII. Special focus on Stabilisation facilities**
- Special focus should be taken regarding Section I Activity; especially those subsections dealing with hazardous waste, produced waste and other materials used.
- Who analyses the produced materials?
- Is the stability of the produced material in line with the set requirements e.g. national legislation or permit?
- Has all waste which was accepted and foreseen for stabilisation been stabilised?
- Are the storage areas of wastes, which have not been stabilised yet, sufficient regarding their hazardousness and emission potential?

**XIV. Special focus on Solidification facilities**
- Special focus should be taken regarding Section I Activity especially those subsections dealing with hazardous waste, produced waste and used other materials.
- Who analyses the solidified material?
- Is the solidification of the produced material in line with the set requirements e.g. national legislation or permit?
- Has all waste which was accepted and foreseen for solidification been solidified?
- Are the storage areas of wastes, which have not been solidified yet, sufficient regarding their hazardousness and emission possibilities?

**XV. Special focus on Shredder facilities**
- Special focus should be taken regarding Section V Dust/Fine Particulates Control and Section VII Noise & Vibration Control

**XVI. Special focus on Blending or mixing facilities**
- Special focus should be taken regarding Section V Dust/Fine Particulates Control and Section VII Noise & Vibration Control.
- What is the purpose of the blending or mixing process?
- Does the mixing process not interfere with Article (5) Section 4 of the Landfill Directive (1999/31/EC)?
(2) Check List – Pre-treatment Facility

XVII. Special focus on MBT or biotechnical facilities

- Special focus should be taken regarding Section VI Odour Control.
- Are documents available showing the further use of the treated material?
- Is the mass balance of input and output in compliance? (e.g. considering losses of water etc.)

XVIII. Special focus on organic/inorganic physico-chemical treatment facilities

- The same special focus shall be taken as it has been listed for stabilisation and solidification facilities.

XIX. Further issues to be checked

- Security
- Accident management plan
- Closure and aftercare management plan
- Noise
- Pest
- Mud on the road
- ...

Source:
“Increase of operating efficiency of Inspection for Environmental Protection, on the basis of Norwegian experience” October 2008

Further reading: BREF Waste treatment Industries: