

Fugitive Emissions Review Report for EnerSys Newport 2016

Fugitive Emissions to Air

Release Point	Source	Substance/s	Emission Source	Control Measures	Any issues in 2016?	Risk Assessment
A2 Stack	Grey Oxide Mill 2	Lead	Abnormal condition, defective emission controls in process	Baghouse, 108 filter bags, 3 absolute filters. Continuous particulate emission monitoring (PCME kit). Alarms set at 1.0mg/m3. Pressure differential monitoring, monthly spot monitoring by external contractor, reported to NRW. TPM system, inspection and maintenance programme. Results are networked & discussed in management and maintenance meetings.	No issues. Annual average for 2016 0.05mg/m3	Low
A3 Stack	Grey Oxide Mill 3	Lead	Abnormal condition, defective emission controls in process	Baghouse, 198 filter bags, 6 absolute filters. Continuous particulate emission monitoring (PCME kit). Alarm set at 1.0mg/m3. Pressure differential monitoring, monthly spot monitoring by external contractor, reported to NRW. TPM system, inspection & maintenance programme. Results are networked & discussed in management/maintenance meetings.	Annual average for 2016 0.07mg/m3 excluding the breach of 4.55mg/m3, 0.44mg/m3 if included. Overall performance good, one incident.	Low
A63 Stack	Grey Oxide Mill 4	Lead	Abnormal condition, defective emission controls in process	Baghouse, 264 filter bags, 6 absolute filters. Continuous particulate emission monitoring (PCME kit). Alarms set at 1.0mg/m3. Pressure differential monitoring, monthly spot monitoring by external contractor, reported NRW. TPM system, inspection and maintenance programme. Results are networked & discussed in management/maintenance meetings.	No issues. Annual average for 2016 0.05mg/m3	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any issues in 2016?	Risk Assessment
A4 stack	Grey oxide blower	Lead	Abnormal condition. Defective emission controls in process	12 bag fabric filter baghouse, 1 absolute filters, 3 davis filters x2. Pressure differential monitoring and 3 monthly spot monitoring, TPM System, Inspection & maintenance programme increased with filter bags and cages changed every 6 months. Results are networked & discussed in management/ maintenance meetings.	One occurrence in November of the stack emitting at 0.59mg/m ³ , which is above the emission limit. Annual average of 0.21mg/m ³ .	Medium. A4 emission limit value to be reviewed as part of permit review 2017. Want to increase ELV for this process to 0.75mg/m³ which is well below BAT.
A6 stack	Strip Mill Lead Melting	Lead	Abnormal condition. Defective emission controls in process	Wet scrubber & 6 absolute filters in place. Pressure differential monitoring and 3 monthly spot monitoring by external contractor. Scrubber packs and absolutes changed every 6 months. Ducting cleaned and inspected every 3 months. TPM system, inspection & maintenance schedule. Results discussed in meetings with maintenance	No issues. Annual average of 0.20mg/m ³ .	Low
A8 stack	Cominco and concast processes	Lead	Abnormal condition. Defective emission controls in process	Wet scrubber and 6 absolute filters in place. Pressure differential monitoring and 3 monthly spot monitoring by external contractor. Scrubber packs and absolutes changed every 6 months. Results reported to NRW. TPM system, inspection & maintenance schedule. All results discussed in meetings with maintenance & Management.	No issues. Annual average of 0.05mg/m ³ .	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
A9 stack	Cell 2 assembly area	Lead	Abnormal condition. Defective emission controls in process	400 fabric filter cartridges. Pressure differential monitoring & quarterly spot monitoring by external contractor. Contractors complete quarterly inspection. TPM system, inspection and maintenance programme. Fortnightly stack emissions meetings with Maintenance and Management to review all results.	Annual average of 0.05mg/m3	Low
A10 stack	Cell 2 Assembly Area	Lead	Abnormal condition. Defective emission controls in process	Baghouse with 336 fabric bags. Pressure differential monitoring and quarterly spot monitoring by external contractor. Contractor completes quarterly inspection. TPM system, inspection and maintenance programme. Fortnightly stack emissions meetings with Maintenance& Management to review results.	Annual average of 0.03mg/m3	Low
A11 stack	Lead Reclaim	Lead	Abnormal condition. Defective emission controls in process	Baghouse with 308 Fabric filter bags. Pressure differential monitoring and quarterly spot monitoring by external contractor. TPM System, Inspection & maintenance programme. Contractors complete quarterly inspection. Stack emissions meetings with Maintenance & Management to review results.	No issues Annual average of 0.04mg/m3	Low
A12 stack	Chip Handling	Lead	Abnormal condition. Defective emission controls in process	Baghouse with 140 fabric filter bags &13 absolute filters. Pressure differential monitoring & quarterly spot monitoring by external contractor. TPM System, Inspection & maintenance programme. Stack emissions meetings review results.	No issues Annual average of 0.03mg/m3	Low

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A13 stack	Pasting Area	Lead	Abnormal condition. Defective emission controls in process	Baghouse with 220 filter cartridges. Pressure differential monitoring & quarterly spot monitoring by external contractor. TPM System, Inspection & maintenance programme. Stack emissions meetings with Maintenance & Management to review results.	No issues Annual average of 0.04mg/m3	Low
A15-A62 stacks Proposed A64 to A67 stacks	Drying Ovens	Lead and Combustion gases	Abnormal condition for lead. Defective emission controls in process	Maintenance programme in place with access platforms. Energy management improvement project set up, more efficient burners being introduced reducing energy consumption and carbon footprint.	No issues	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
Vehicle Exhaust	Forklift trucks	Electricity used	No emissions	Electric storage battery. All vehicles on contract and are properly maintained.	No issues	Low
Pool & Company Car Exhausts	Cars and vans	Carbon dioxide, particulate and nitrous oxides	Vehicle engines	Cars are on contract, well maintained and replaced every three years so emissions technology up to date.	No issues	Low
Various site wide	Sub-contractor emissions	Various	Various	Risk assessment, method statement & established control measures verified by permit to work system. Contractor induction. Site security in place.	No issues	Low
Open doors, windows and vents	Production processes	Production Materials including lead	Open doors, windows, vents	Self-closing doors in place. EHS audits/inspections carried out by every department. Current EHS objective is to reduce the lead emissions to air in the workplace (also health and safety hazard) and in the ambient air outside. Lead in air survey work carried out on a monthly basis in accordance with CLAW Regs. Ambient lead in air monitoring is completed monthly and is below the statutory limit. Lead containment is key big focus for the business.	Yes – however fugitive emissions reduction projects are in place for Metallics, Assembly, Maintenance Toolrooms and Waste Management area.	Medium Projects established for Metallics, Assembly, Maintenance Toolrooms and Waste Management Area
Equipment stored outside	Production and Maintenance	Production Materials including lead	Process chemicals and lead	Big emphasis on this in 2016 with Production and Maintenance. EHS audits/inspections carried out by every department. EHS objective to reduce lead emissions to air in the workplace (also health and safety hazard) and in the ambient air outside. Lead in air survey work carried out on a monthly basis in accordance with CLAW Regs. Ambient lead in air monitoring is completed monthly and is below the statutory limit.	Yes – however no lead bearing equipment is allowed outside. Must be lidded, wrapped, contained and moved to destination immediately.	Medium As above.

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
Plant buildings	Emissions from heating & hot water boiler systems	Combustion gases	Boiler flue systems	Boiler maintenance system in place, managed by Maintenance Department. EHS audits/inspections carried out by department. Area of Responsibilities established.	No issues	Low
Site wide	Fire Incident	Combustion gases, smoke, lead emissions	Production processes highlighted in fire risk assessment.	Site buildings have sprinklers, fire extinguishing equipment, site security and closed circuit cameras. Fire risk controls outlined in fire risk assessment programme. Ductwork maintenance programme. Procedures in place.	No issues	Low

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Fugitive Emissions to Water

Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
W1 (Interceptor) Permit NP3030BJ	Site surface water drainage system, process contamination	Lead and any other materials in the area	Surface water run off, drainage system	Interceptor to trap all surface water if required holds 144m ³ , stopping any pollution reaching controlled waters – re-en to western boundary of site. Weekly spot test for lead and pH completed. Tested by external MCERTS and UKAS accredited Laboratory. ISO/IEC 17025:2005. Automated composite sample monitoring system. Results trended and monitored. Well below consent limit of 2mg/l. Drainage survey completed. External cleaning & roadway sweeping completed. Lead waste lidded to avoid spillages. Emergency Procedure in place – spill kits & drain covers across site. Areas of Responsibility established.	No issues Average lead level for 2016 is 0.43mg/l.	Low
S1 (Effluent to Welsh Water drainage system) Permit NP3030BJ	Sealed drains in Oxide Mill Area	Lead and any other parameters as outlined on our permit – sulphates, suspended solids and pH.	Abnormal, emergency situation allowing lead from oxide processes into drains.	Drains sealed at all times. Controls established if work on drain is required. Survey, maintenance, permit to work etc. Lead waste lidded to avoid spillages. Emergency Procedure in place – spill kits & drain covers located across site. Testing of effluent prior to release. Batch holding tanks in place 150m ³ capacity. Tested for lead, pH, sulphates before release.	No issues Average lead level for 2016 is 0.52mg/l.	Low
W1 and S1 (Permit NP3030BJ)	Leaks from compressor equipment	Fuel, oil	Abnormal, emergency situation causing oil, fuel leaks	Maintenance & monitoring of equipment. No feeds into drainage system. Spill kits, drain covers, drip trays. EHS audits / inspections carried out by each department. Cleaning & road sweep. Area of Responsibilities established. Interceptor for surface or clean water drain systems, maintenance of interceptor Drip trays used for mobile /temporary equipment set on sealed ground.	No issues	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
W1 and S1 (Permit NP3030BJ)	Contractors materials and disposing of waste	Construction waste	Abnormal, emergency situation allowing rainwater to mix with waste and enter surface water drainage system	Employ contractors with environmental procedures. Contractor induction programme. Method statement, risk assessment & EnerSys permit to work system. Monitor performance, Environmental Management System (duty of care auditing & operational control etc.) Environmental & safety audits / inspections carried out by each department. Areas of Responsibility established. Interceptor tank for surface water drain systems, maintenance of interceptor. External cleaning road sweep once a month. Testing of effluent prior to release. Site security.	No issues	Low
W1 and S1 (Permit NP3030BJ)	Spillage of lead chips, oxide, dross, plates when tools or equipment moving between buildings.	Lead and lead oxide	Abnormal, emergency situation leading to lead in surface water runoff or effluent.	Lidded plastic containers – lead waste management system in place. All lead waste held inside the purpose built Waste Management Area. External road cleaning and internal floor scrubbing completed. Lead reclaim process in place – reduces movement of offcuts. Compliance with procedures is key.	Yes – but much increased awareness and projects in place to reduce this happening. Improving picture.	Medium
W1 and S1 (Permit NP3030BJ)	Fire water, sprinkler system	All substances exposed to fire water from across site	Emergency situation – fire resulting in fire water running to surface water drains or entering effluent plant.	Fire risk assessment process and controls Permit to work systems (hot work etc.)Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Interceptor for surface clean water drain – can hold fire water run off. Site security measures in place. Drain covers and spill kits in use.	No issues	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
W1 & S1 Permit NP3030BJ	Oil and small quantities of chemical stored in external doored cabinets	Oils, chemicals etc.	Abnormal, emergency conditions when carrying out delivery or collecting activities	All external storage bunded. Storage unit doors secured and fit for purpose. Monitored by stores Dept. Appropriate containers used. Storage facilities away from watercourses, open drains, gullies & un-surfaced areas/ porous surfaces. Trained FLT operators handle material. Emergency procedures, Spill kits etc. EHS audits / inspections carried out by each department. Area of Responsibilities established. Contaminated rainwater collected in open bunds disposed of in accordance with waste management procedures. Interceptor installed for surface rain-water drain systems, maintained and cleaned. Road sweep service every month. Loading & unloading supervised in designated areas.	No issues	Low
W1 & S1 Permit NP3030BJ	Vehicle debris, wheels etc	Rubber, metal	Debris from vehicles entering the drainage system.	All forklift trucks under maintenance contract. Daily checks on vehicles. Waste management procedures. Traffic / transport rules Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Interceptor tank for surface water drain systems.	No issues	Low
W1 & S1 Permit NP3030BJ	Oil from vehicles	Oils, petrol etc	Surface run off in an abnormal or emergency condition and into the drainage system.	Transport / traffic rules. Spill kits, drain covers. Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Interceptor for surface or clean water drains systems, maintenance of interceptor. Site security system on site with the checking of vehicles on and leaving site.	No issues	Low

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Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
W1 & S1 Permit NP3030BJ	IBCs stored externally containing lead bearing water	Lead contaminated waste	Surface run off in an abnormal or emergency condition and into the drain.	All external IBCs on bunds. System in place for safe emptying of IBCs into effluent treatment plant. Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Interceptor tank for surface or clean water drain systems, maintenance of interceptor.	No issues	Low
S1 Permit NP3030BJ	External sewer Welsh Water contamination of sewer system.	Sewage, waste from other industrial sites	Drainage back fill conditions results in waste material flow into site drains.	High levels of rain or flood conditions can cause sewer to back fill into site drainage. Engineering work completed on drainage system in 2012 to minimise backflow from external drainage onto site.	No issues	Low

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Fugitive Emissions from Waste

Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
Process areas, transportation around site, contractors waste arrangements	Process Waste	Lead contaminated process material	Production, storage, transportation processes.	Purpose built waste management area. Manned 6am to 10pm. QMS & EMS waste procedures, aspects, operational control. Spill kits, competent personnel. Environmental & safety audits / inspections carried out by each dept. Areas of Responsibilities established. Lidded bin process waste management system established for handling all lead waste streams on site. Waste segregated, identified, controlled and contained. All lead waste held in WMA. Apply waste hierarchy. Approved suppliers used.	Less occurrences of lead waste on the floor around site. Fugitive emissions projects in place for 2017 as previously stated.	Medium
Contractors activities around site	Contractors Waste	Construction waste etc.	Skips, bins, transportation	Contractor inductions. Approved contractors and suppliers, methods statements, permit to work. Waste management procedures and designated area for waste materials. Responsibilities established. Environmental & safety audits / inspections carried out by each department. Waste carriers licences held.	No issues	Low
Debris from pallet storage area	Pallet Storage	Wood, nails etc	Recycling and storage of pallets. Deliveries and collections.	Waste management procedures. Designated wood/pallet recycling arrangements. Pallet recycling area relocated from transport route. Wood skip placed in pallet recycling area. Magnet purchased to enable a sweep of the car park areas for nails. Environmental & safety audits / inspections carried out by each Dept.	No issues	Low

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Fugitive Emissions Released to Ground and Groundwater 2016

Release Point	Source	Substance/s	Emission Source	Control Measures	Any Issues in 2016?	Risk Assessment
Boreholes, un surfaced ground	Process areas, transportation around site, process waste	Lead and process waste	Open bins, skips etc with overflowing waste, high winds, dilution due to rain	Groundwater bore holes sealed. Production process and SHEQ procedures, aspects, operational control, lidded bins& skips, licensed service provider. Spill kits, competent personnel. Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Lidded waste management	No issues	Low
Boreholes, un surfaced ground	Contractors activities around site	Construction waste	Uncontrolled contractor activities	Approved contractors and suppliers, methods statements, permit to work. Contractor inductions. Waste management procedures. Environmental & safety audits / inspections carried out by each department. Area of Responsibilities established. Groundwater bore holes sealed.	No issues	Low
Boreholes, un surfaced ground	Engineering processes. Delivery, dispensing and storage processes.	Oils, chemicals including acid	Accidental spillage	Groundwater bore holes sealed. All external storage bunded. Storage unit's doors secured. Monitoring by stores department. Telemetry systems in place on acid tanks. Trained FLT operators to handle material. Spill kits available. Environmental & safety audits / inspections carried out by each department.		Low

Paula S. Terrett

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SHEQ Advisor March 30th 2017