



# 'General environmental protection requirements for VWP suppliers'

Volkswagen Poznań hereby announces that suppliers of products/services/processes to VWP premises shall be bound by the following regulations:

## 1 Basic principles

Environmental protection, in terms of both products manufactured on-site and their own manufacturing equipment, is of the essence to Volkswagen Poznań. Observance of environmental protection principles is also required from VWP's suppliers of products, services and processes.

To meet environmental protection requirements, contractors shall take into account, amongst other things, the following:

- Taking all necessary measures to prevent pollution, in particular through application of best available techniques as outlined by BAT reference documents (so-called BREFs),
- Ensuring that system operations do not result in significant environmental pollution,
- Taking actions and applying measures to prevent failures or limit their consequences,
- Describing and listing methods of emission monitoring, with a particular focus on metering of utilities and their visualisation.

The application of Best Available Techniques (BAT) lies in the introduction of technology that provides quantifiable economic and ecological benefits.

Therefore, contractors shall be liable for equipment being the subject of delivery in a manner consistent with the law, and for the observance of all environmental requirements in the following areas:

- Air protection,
- Protection against noise,
- Protection of water and soil,
- Energy and material efficiency,
- Waste management,
- Nature conservation.

Any projects that could affect environmental protection shall first be agreed with the Environmental Protection Officer, through the ordering party. When it is necessary to obtain the relevant permits/authorisations required under environmental protection law, the ordering party shall engage the Environmental Protection Officer in the process. Contractors shall also participate in administrative processes leading to obtaining the required permits/authorisations.



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The environmental and energy policy of the ordering party and the environmental protection principles in place at VWP shall be made known to contractors and their employees engaged in specific tasks on VWP premises. These principles shall be observed.

Contractors shall provide the ordering party with reasons for the solutions adopted, based on product life-cycles and energy efficiency

Contractors shall guarantee that, whilst performing activities at the ordering party's sites, they shall clearly regulate the issue of responsibility for, and procedures related to, environmental protection. In particular, contractors shall notify their employees working at the ordering party's sites of the workplace behaviour that is consistent with the principles of environmental protection.

Utilities and materials provided by the ordering party (compressed air, electricity, water, heat, technological materials, consumables, etc) shall be handled in a resource-efficient manner.

In the event of the occurrence of environmental risks or damage, the emergency exchange shall be notified immediately on internal telephone 35 4555, and from external lines, +48 61 659 4555.

## **2 Permits**

During planning and performance of an order, the environmental protection regulations, provisions of EU, Polish and local law shall be observed, with particular attention to BAT reference documents (BREFs).

Any contact with offices necessary for obtaining environmental permits/authorisations shall be conducted by the Environmental Protection Officer. Any documents related to the applications and notifications, etc, shall be signed by the Environmental Protection Officer and addressed by them to the relevant offices. All required documents related to the aforementioned procedures shall be made available, in full, by contractors.

During the project acceptance procedure, contractors shall confirm that all conditions for environmental protection imposed by the law and relevant decisions have been met. Related necessary expenditure, e.g. for acceptance certificates from surveyors or for the conduct of measurements etc, shall be covered by contractors, unless it has been agreed otherwise in a contract.

## **3 Protection against noise**

The following guidelines apply to the construction/expansion/reconstruction of the ordering party's noise emitting equipment and processes, including transport and handling. Equipment/systems shall cover all elements emitting noise, in particular tubes, ducts, housings, auxiliaries, outlet openings, and air inlet and outlet systems.

The level of noise emitted to the environment shall be kept as low as possible, in accordance with state-of-the-art technology making it possible to reduce noise, and shall



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not be higher than limit values applicable in the protected area; in the case of the ordering party's premises, this is 50 dB(A) during the day and 40 dB(A) at night.

All newly installed/expanded/modernised noise sources shall not exceed a sound power level of 70 dB(A). If, due to technical reasons, the sources cannot operate at less than this level, their use shall first be agreed with the Environmental Protection Officer.

If there are significant single sounds, impulses or low frequency sound components of noise emitted by a specific piece of equipment, the ordering party reserves the right to reduce the guaranteed value by the value of the individual components of the sound or impulse etc.

Actions limiting noise emissions that are necessary to keep the limit values on the areas protected from noise, which go beyond the possibilities of noise reduction techniques, shall be separately specified (e.g. acoustic baffles).

After system start-up, control measurements of installed equipment shall be performed as well measurements in protected areas, in cases when the planned construction/reconstruction/expansion will significantly affect the aforementioned areas.

Contractors shall demonstrate, at their own expense and as part of a professional acceptance procedure, that the values declared by them are being observed. The ordering party reserves the right to conduct its own acceptance tests.

Between 8 pm and 7 am, noise-producing works can only be conducted in agreement with the Environmental Protection Officer.

Noise sources shall be specified using coordinates in the geographic coordinate system expressed as latitude and longitude (saving format: degrees, minutes and second hundredths [hdd,mm,ss.ss]). In addition to the coordinates, the ordinate shall be measured. Contractors shall also be obliged to provide coordinates in a .dwg file, for use with AutoCad 2000 versions and higher, or optionally in a .dgn file.

#### **4 Waste management**

Waste management shall be performed in accordance with the rules of law and the principles included in the company's Waste Management Concept, with a particular focus on:

- Waste prevention,
- Preparation for reuse,
- Recycling,
- Other recovery methods,
- Ensuring proper waste treatment.

In the case of contaminated soil, contaminated construction materials or materials including asbestos/mineral fibre being encountered during the conducted works, the Environmental Protection Officer shall be notified immediately, as well as the emergency exchange, on internal telephone 35-4555, and from external lines, +48 659 4555.



Unless a contract provides for otherwise, waste produced by contractors during the performance of any works related to the construction, demolition, repair of facilities, cleaning of tanks or equipment and cleaning, maintenance and repairs shall be handled in accordance with legal requirements and shall be the property of the contractors, except for scrap. If the ordering party is to take over the waste produced by contractors, scrap shall be included in the offer and this fact shall be agreed at the stage of signing of a contract with the ordering party. Assumption of waste handling by the ordering party shall be agreed with the Environmental Protection Officer.

### **Guidelines**

Contractors shall undertake to observe the rules of waste management at the ordering party's premises. Unless the regulations of individual contracts or regulatory obligations provide for otherwise, the following guidelines shall be binding for contractors:

#### Cleaning and waste collection from work sites:

Contractors shall be obliged to remove impurities from work sites during and after completion of works (instructions issued by the site manager and the ordering party shall be binding).

Failure to comply with the aforementioned obligation shall result in the completion of these works by the ordering party or other companies and the deduction of the resulting costs from the final invoice.

Contractors shall be obliged to remove and dispose of waste at their own expense in the manner stipulated by the relevant regulations of Polish law.

Waste containers shall be provided by contractors before commencement of an order's implementation. Contractors shall take care to maintain their waste storage and disposal processes in the manner stipulated by the relevant regulations of Polish law. Waste containers shall be marked with the name of the company in a visible manner. Containers shall be covered/closed at the end of each working day.

During work, contractors shall be obliged to ensure the protection against damage or pollution of existing:

- Systems,
- Technological equipment,
- Construction elements,
- Soil and water.

Clean-up work (including the disposal and storage of waste) ordered by the ordering party shall be performed at the contractor's expense.

Upon completion of works, contractors shall be obliged to provide the Environmental Protection Officer and the orderer's representative with written confirmation of the transfer



of waste to authorised companies (quantity, type and method of waste management). Only after submission of all written confirmation – if established in a contract – shall contractors receive remuneration.

## **5 Chemicals management**

### **Substances that pose a threat to the environment**

**Use of materials containing asbestos, PCB (polychlorinated biphenyls), chlorinated hydrocarbon compounds, fluorochlorohydrocarbons, cadmium, mercury and substances listed in Annex XIV to the EU REACH regulation is prohibited.**

The use of the following materials or groups of materials shall be acceptable only with the ordering party's consent, and shall otherwise be avoided where possible: chromium (VI), halogenoalkanes, sulphur hexafluoride, CMR substances (carcinogenic, mutagenic or toxic for reproduction), organic complexing agents, poly- and perfluoroalkylated tensides (surfactants), boron, cyanide, organic zinc compounds, sulphides and organic sulphides and not readily biodegradable substances. All materials used shall be free of substances that have a negative impact on the lacquer crosslinking process.

Substances that pose a threat to the environment can only be used by contractors during the construction/installation and operation of equipment when it is absolutely necessary from the technical point of view. Relevant information on such substances shall be included in the technical documentation.

If chemical products are to be delivered as part of the installation or operation of equipment, or for construction or use of a specific facility, they can only be used upon previous agreement with the ordering party, at the design stage. To enable the ordering party to assess the safe use of a chemical material, contractors shall submit a safety data sheet, technical data sheet, and for process materials, a VW No. This shall also apply to chemical substances in equipment (e.g. systems containing oil, such as transformers and hydraulic equipment).

Following environmental pollution by substances in the course of any works by contractors, the Environmental Protection Officer shall be notified immediately, as well as the emergency exchange, on internal telephone 35 4555, and from external lines, 61 659 4555. Costs of dealing with the consequences of environmental pollution, including cleaning buildings, soil, ground- and surface water, shall be borne by contractors.

### **Guidelines**

Contractors shall undertake to observe the following rules of chemicals management at the ordering party's premises:

Contractors bringing chemical substances and mixtures onto the premises of VWP sites shall be obliged to observe the legal regulations concerning safe storage and use of chemical substances and mixtures.



Contractors shall notify the ordering party in writing of the presence and use of all chemical substances and mixtures and the method of their security for the duration of works conducted on VWP premises, together with their names, hazard class, quantity and type of container in which they are stored. The ordering party shall be notified in writing of the presence of any chemical substances/mixtures, in accordance with the applicable material pass.

Contractors shall organise the storage and use of chemical substances and mixtures specified by the ordering party in accordance with the safety data sheet and the label, in a manner protecting against any possible penetration of chemicals into the environment (e.g. protection of the soil, sewage system, floors).

Contractors shall be obliged to possess relevant equipment and to use measures protecting against spillage of substances into the environment, e.g. containment bunds, sorbents, etc. Particular attention shall be paid to the storage and use of substances hazardous to water (Hazard Class N), and to all oils and petroleum derivatives.

Contractors shall be obliged to remove and dispose of waste, including chemical substances and preparations, in accordance with the VWP requirements given in Section 4 of this document.

## **6 Air conditioning units**

Use of cooling media that can cause destruction of the ozone layer is not allowed; cooling media with a low global warming potential (GWP < 2000) should be preferred. This prohibition shall also include possible admixtures in other cooling gases.

The application of large central cooling/air-conditioning units shall be preferred instead of multiple smaller ones.

For cooling/air-conditioning units, system details, such as their place of installation, cooling output, electric power and type and quantity of cooling medium, shall be documented on an on-going basis.

Cooling mediums introduced to the premises of VWP shall be agreed with the Environmental Protection Officer at the planning stage for such equipment or when changing the cooling medium. Such agreements shall be made in accordance with VWP's internal regulations.

### **Guidelines**

Contractors shall undertake to observe the following rules of air-conditioning units at the ordering party's premises:

Changes (e.g. expansion, reconstruction, repairs) in equipment including substances depleting the ozone layer (CFC and HCFC) are not acceptable.



Planning of the equipment as and when required, without taking into account large reserves.

In the case of new equipment or replacement of the cooling medium, first of all the use of environmentally-friendly cooling media shall be considered. Environmentally-friendly cooling media have the value of ODP=0 and, at the same time, GWP value below 10.

If, according to the conducted analysis, no environmentally-friendly media can be applied, F-gases may exceptionally be used, except for SF<sub>6</sub>.

From among the F-gases, only those that can be used as cooling media with an ODP value equal to 0 and, at the same time, a GWP value lower than 2000 may be used.

The selected cooling medium, along with the equipment and TEWI calculations, shall be presented for approval to the Environmental Protection Officer.

Installation/assembly and start-up of the equipment can be performed by persons with the relevant qualifications, required by law.

Air conditioning units shall be specified using coordinates in the geographic coordinate system expressed as latitude and longitude (saving format: degrees, minutes and second hundredths [hdd,mm,ss.ss]). In addition to the coordinates, the ordinate shall be measured. Contractors shall also be obliged to provide coordinates in a .dwg file, for use with AutoCad 2000 versions and higher, or optionally in a .dgn file (this requirement shall not apply to the Foundry).

Before the equipment/system is handed over for use, a contractor shall be obliged to:

- Perform and document a leak test, by persons with the qualifications required by law,
- Label equipment containing cooling media in accordance with legal requirements,
- Establish and complete a maintenance and repair sheet for the equipment/systems containing 3 kg or more of cooling medium,
- Deliver Operation and Maintenance Manuals or other documents for the equipment/system, in which the cooling system and its medium are described,
- Deliver all documents in Polish language versions.

## **7 Energy saving**

During the design, engineering and construction of systems and equipment, the expected costs of energy consumption during the equipment/system's operation shall be taken into account. Usually, such costs constitute a significant part of operating cycle costs, and may therefore be a determining factor in deciding on awarding a contract during the purchase process!

At the stage of planning/selecting equipment/technologies/lines, an assessment of the energy and material efficiency of the proposed solutions shall be taken into account.

The basis for such framework conditions are the principles of environmental protection applicable in the company, particularly those governing energy savings. As such, offerors/suppliers shall pay particular attention to the following issues:



- As part of the offer/specification, data concerning energy consumption shall be specified in a binding manner.
- As part of the offer/requirements, a so-called Total Cost of Ownership (TCO) shall be specified as part of the specification of operating costs for a system/piece of equipment. This will make it possible to specify the total cost of use, including, amongst other things: the purchase cost, implementation cost and current operating costs for a specific period of time.
- The inspection of energy consumption is a component of the equipment/system acceptance procedure upon the equipment/system's start-up.
- In the case of immediate purchase of replacement components and new components, asynchronous three-phase motors with EFF 1 efficiency class in accordance with IEC 60034-2 shall be used.
- The use of energy-efficient systems and machines shall be preferred, or offered as an alternative.
- Frequency-controlled drive systems shall be provided for or offered as an alternative for the operation of systems with variable loads, or the possibility of turning on air-conditioning systems at intervals.
- In the case of receivers with the following rated power:
  - electricity > 100 kVA
  - heat > 500 kW,stationary measuring devices shall be installed.
- Measurement points for the temporary measurement of consumption or use of electric power and energy shall also be planned for.
- When possible, use of compressed air shall be avoided.
- Compressed air receivers shall be planned for a max. 5 bar of overpressure, or 6 bar of absolute pressure; higher pressures shall be generated only in exceptional situations, outside the central system.
- Heat shall be generated by electricity only in exceptional cases. Particular attention shall be paid to this in offers.
- Waste heat shall be utilised.
- During the engineering of a system, use of energy-saving devices shall be taken into account, e.g. during equipment stoppages, or such solutions shall be offered as an alternative.
- If it is technically justified, equipment/systems returning energy to the grid shall be utilised.
- If it is technically feasible, free cooling shall take priority over refrigeration.
- Peak energy consumption should be avoided.
- If it is technically justified, the use of frequency converters shall be planned for.
- The equipment used shall comply with electromagnetic compatibility (EMC) requirements. Alternatively, equipment that is the source of EMC disturbances shall be properly protected, to limit the disturbances with respect to other participants of the power network.

## **8 Water and sewage management**

Emission of substances into the environment shall be maintained at the lowest possible level, taking into account relevant BREFs.





First of all, solutions shall be employed that guarantee a reduction in the consumption of water and/or efficient use of raw materials, as well as limitations on sewage emission by the application of techniques to reduce the amount of water and the noxiousness of produced sewage, the maximisation of internal recycling, and where not feasible technically and not justified economically, devices to reduce emissions shall be used, in agreement with the Environmental Protection Officer.

Contractors shall undertake to observe the following rules of water and sewage management at the ordering party's premises:

Sewage generation shall be avoided.

Where technically and economically feasible, sewage shall be subject to such processing as to make it possible to re-use the water (recycling).

Separation of sewage disposal, based on individual types of sewage adjusted to the company infrastructure.

Substances are restricted which are particularly harmful to the aquatic environment in accordance with Polish law, in order to maintain acceptable sewage quality parameters at the site's outlet.

Before undertaking any activities on VWP premises, as a result of which sewage may be produced, works shall be consulted upon with the Environmental Protection Officer, in order to agree upon the method and location of sewage disposal.

It is prohibited to introduce sewage produced during conducted works into the storm water system via VWP premises.

The introduction into the soil of any substances that may cause soil degradation or groundwater pollution is prohibited. Contractors shall protect the soil and water environment against the penetration of substances hazardous to the environment.

Should the soil or groundwater become contaminated, or should such contamination be identified, the emergency exchange shall be notified immediately on internal telephone 35 4555, and from external lines, 61 659 4555. The Environmental Protection Officer and Project Manager of the ordering party shall then be informed.

In the case of new equipment/systems, measures protecting the soil and water environment shall be planned, e.g. placement of containers or equipment in leak-proof, resistant and stable tubs made of steel, plastic or concrete. Tubs shall have a capacity corresponding to the total capacity of the equipment used and shall be equipped with controlling devices, e.g. overflow protection or leakage probes (working on the principle of 2 barriers).

## **9 Air protection**

The following guidelines shall apply to the construction/expansion/reconstruction of the



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ordering party's equipment emitting substances into the air, as well as all processes, including transport and handling.

The installation of equipment causing air emissions shall be consulted upon with the Environmental Protection Officer at the planning stage, in order to verify compliance with emission permissions.

The emission of substances into the environment shall be maintained at the lowest possible level which does not exceed the emission values for protected areas, taking into account the best available techniques described in the relevant BREFs. First of all, solutions making use of low-emission technologies shall be applied, and where this is not feasible technically and not justified economically, devices to reduce the emissions shall be used, as agreed with the Environmental Protection Officer.

Central systems for air extraction and scrubbing shall be preferred, instead of decentralised systems.

Attention shall be paid so that the quantity of used air (volumetric air flow) is as low as possible, and constant. Equipment that can produce substances harmful to the air shall be isolated via individual extraction units, if technically justified.

In the case of equipment used for air cleaning, deviations from its intended operation (e.g. damaged or completely blocked filters) shall be described and included in the design. In special cases, in consultation with the ordering party, automatic messages displayed in the control room/central dispatch office shall be provided for.

In the case of failure of the equipment for used air cleaning, if there is a risk of exceeding limit values, forced cut-off of the equipment generating the pollution shall be provided for, unless otherwise agreed with the ordering party.

The concept of equipment maintenance and pollution reduction shall guarantee that substances stopped in the reduction equipment (e.g. dust or volatile organic compounds) will not get into the working area or into the natural environment during maintenance or disposal.

Unless it has been specified otherwise, all systems for flue gas discharge (stacks) shall be provided with inspection hatches.

In the case of all systems causing emission of substances regulated under law, contractors shall be obliged to install measurement ports on emitters, in accordance with Polish Norm PN-Z-04030-7 of 1994 "Tests on dust content" (to be taken into account at the stage of planning/execution/handover for use), and for performance of control tests after system start-up.

For projects related to PM 2.5 dust emission, highly efficient devices to reduce dust, with efficiency over 99%, shall be applied in order to meet air quality standards.

Emission sources shall be specified using coordinates in the geographic coordinate system



expressed as latitude and longitude (saving format: degrees, minutes and second hundredths [hdd,mm,ss.ss]). In addition to the coordinates, the ordinate shall be measured. Contractors shall also be obliged to provide coordinates in a .dwg file, for use with AutoCad 2000 versions and higher, or optionally in a .dgn file (the requirement shall not apply to the Foundry).

## **10 Nature conservation**

The following guidelines shall apply to the construction/expansion/reconstruction/demolition of civil structures or other investment projects conducted in green areas containing trees and bushes, the plans for which involve both the removal of trees and the encroachment of works on the remaining trees.

Contractors shall specify the places where plants interfere with the project and the green areas most at risk from having the works in their vicinity, and shall provide this information to the Environmental Protection Officer through a competent department of the ordering party.

The removal of trees or bushes shall be performed upon obtaining a legally required permit, for which the Environmental Protection Officer shall apply.

Damage or destruction of trees and bushes caused by improper performance of a service shall be immediately notified to the Environmental Protection Officer and the Project Manager of the ordering party.

Contractors performing works shall be liable for any damage. The costs of penalties for damaging or improperly removing trees and bushes shall be borne by contractors.

### **Terms and abbreviations:**

Ordering party – Volkswagen Poznań

Contractor – Entity performing an ordered service, or a supplier of manufacturing equipment, systems and components

BAT – Best Available Techniques. The best available techniques described in reference documents (BREFs), prepared by the IPPC Office of the European Union in Seville; <http://eippcb.jrc.es>

BREFs – Reference documents of the European Union, BREFs are prepared by Technical Working Groups established at the European IPPC Office in Seville. BREFs describe BAT guidelines for individual industries, including information and technical material specifying emission limit values and other parameters characterising BAT for a specific system.