Instructions for preparing an environmental plan

These instructions are aimed at companies at the airport that have undertaken to run operations through a licence agreement or ground handling agreement with Swedavia so that people’s health or the environment are not damaged. Swedavia wants to make it easier for companies to comply with the requirements in those agreements by providing these instructions.

The instructions include a checklist and a template for an environmental plan[[1]](#footnote-2).

The purpose of the initial checklist is to help you identify the requirements related to environmental concern issues that you are affected by and to provide you with a basis for preparing your environmental plan.

The checklist begins with questions about the governance of operations etc. and continues with questions related to issues of environmental concern, for example, discharges to wastewater and atmospheric emissions. These issues are connected to applicable environmental conditions[[2]](#footnote-3) and requirements set out in the airport’s regulations[[3]](#footnote-4).

By answering the questions in the checklist, you will learn what requirements your operations are affected by and whether you comply with them.

Once you have answered these questions, you can get help by using the template provided after the questions to prepare your environmental plan.

The purpose of the environmental plan is to address the contractual requirements set by Swedavia regarding:

* a documented analysis of how your company’s operations are affected by the airport’s environmental conditions and regulations,
* documentation of how you ensure that your company’s operations are run so that the requirements noted above are complied with.

|  |
| --- |
| The completed checklist and environmental plan should be sent to: [qualityARN@swedavia.se](mailto:qualityARN@swedavia.se) |

# Checklist

## Governance, responsibilities and compliance with regulations and requirements

Governance of operations through procedures, a clear assignment of responsibilities and functioning communication are essential requirements for complying with the airport’s requirements and the requirements specified in environmental laws regarding issues of environmental concern and preventive work to mitigate risks.

|  |  |
| --- | --- |
| Applicable regulations | |
| AR G-01-2013  AR G-06-2013 | |
| Questions | |
| Is there a system/handbook for the control and the measures your operations need to implement to comply with environmental conditions and the airport’s regulations? | Yes  No |
| Is there a clear assignment of responsibilities that indicates who is/are responsible for compliance with environmental conditions and regulations? | Yes  No |
| Is there a procedure to ensure that employees understand the environmental requirements in effect at the airport and that pertain to their work duties? | Yes  No |
| Is there a procedure for keeping employees updated on changes in AR? | Yes  No |
| Is there someone in operations with explicit responsibility for overseeing the company’s compliance with environmental legislation (the Swedish Environmental Code)? | Yes  No |
| Is there a procedure for reporting incidents through the airport’s incident reporting system that entailed or could have led to an environmental accident or violation of environmental conditions, for example, overfuelling, improper waste management or chemicals management, or failure to suction up glycol? | Yes  No |
| Based on the above answers, describe in the environmental plan how you govern operations, deal with environmental requirements and communicate them to employees. | |

## Discharges to wastewater

Wastewater from Arlanda is piped to the Käppala Water Treatment Facility in Lidingö. Contaminants added to wastewater at Arlanda contaminate the water treatment facility’s sludge and restrict its use. Examples of contaminants that must not be added to wastewater are heavy metals and oil. There are especially stringent requirements for cadmium, whose use is strictly regulated, although it is used in the aircraft industry since it is highly corrosion-resistant.

|  |  |
| --- | --- |
| Applicable environmental conditions | Applicable regulations |
| Swedavia is responsible for ensuring that wastewater from all operations in the airport area is treated in such a way that wastewater at the common connection point to the Municipality of Sigtuna’s collection system at Måby at all times complies with the requirements in effect under its *Allmänna bestämmelser för brukande av den allmänna vatten- och avloppsanläggningen* (‘General terms for the use of the public water and sewage facility’). | AR G-05-2013  AR G-09-2013  AR G-11-2013  AR G-12-2015  AR G-13-2017  AR A-08-2013 |
| The work to reduce cadmium discharges from operations shall continue, and the cadmium content at the common connection point to the Municipality of Sigtuna’s collection system at Måby shall be checked through at least six monthly proportional-flow tests a year. |
| Questions | |
| Do operations include workshop services in premises with a floor drain? | Yes  No |
| Is there any form of contaminated water (for example, from washing/cleaning/preparing food) produced in your operations that is directed to the wastewater network? | Yes  No |
| Are equipment or materials that contain cadmium used in operations? | Yes  No |
| Are degreasing compounds that are added to wastewater self-separating? | Yes  No |
| Is there a grease or fat trap/interceptor installed to clean the wastewater from your operations? | Yes  No |
| If yes, is the grease trap/interceptor emptied at least once a year and the fat trap/interceptor emptied at least four times a year? | Yes  No |
| Is there any treatment of wastewater or other treatment of contaminated water to minimise discharges of hazardous substances to wastewater? | Yes  No |
| Are there a procedure and absorbents in place to immediately begin clean-up and limit the spread in a spill/accident? | Yes  No |
| Is there a procedure in the event of a major spill/accident for immediately contacting the Airport Security Center (*Ledningscentralen*)? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work to limit the discharge of hazardous substances to wastewater. | |

## Discharges to surface water

Surface water from Arlanda is directed to the Märsta River and then toward Lake Mälaren. Contaminating discharges to surface water can occur, for instance if chemicals or waste is handled/stored improperly. Another source of discharge is leaking vehicles.

|  |  |
| --- | --- |
| Applicable environmental conditions | Applicable regulations |
| Chemical products and hazardous waste shall be stored and handled so that spills and leakage do not contaminate the surroundings. | AR G-02-2013  AR G-09-2013  AR G-11-2013  AR G-12-2015  AR G-13-2017 |
| During the testing period, the indicative targets for water leaving the facilities, measured at point F, shall be:  • an oxygen level of at least 5 mg/l,  • a total organic content (TOC) less than 30 mg/l (calculated as an annual average),  • a metal content that, except for copper, falls below the values for “moderate content” under the Swedish Environmental Protection Agency’s Report 4913 *Bedömningsgrunder för sjöar and vattendrag* (‘Assessment bases for lakes and waterways’),  • a content of discharged copper that falls below the value for “high content” under the Swedish Environmental Protection Agency’s Report 4913. |
| Questions | |
| Do operations include washing and/or basic service on vehicles outdoors? | Yes  No |
| Is any form of contaminated water produced in operations (for example, from washing/cleaning) that is directed to the surface water network? | Yes  No |
| Is there an oil separator installed to treat the operations’ discharge to surface water? | Yes  No |
| If yes, is the oil separator emptied at least once a year? | Yes  No |
| Is there any other form of treatment of surface water or other treatment of contaminated water to minimise the discharge of hazardous substances to the surface water? | Yes  No |
| Are there a procedure and absorbents in place to immediately begin clean-up and limit the spread in a spill/accident? | Yes  No |
| Is there a procedure in the event of a major spill/accident for immediately contacting the Airport Security Center (*Ledningscentralen*)? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work to limit discharges to the surface water network. | |

## Chemicals management

All chemical products shall be stored so that they do not risk contaminating soil or water. In practice, this means the products shall be stored in spill containment berms or in spaces that have no floor drain. A current list of the chemicals your operations use/store shall be compiled to make it easier to switch to less toxic products, which are a requirements under Swedish environmental laws.

|  |  |
| --- | --- |
| Applicable environmental conditions | Applicable regulations |
| Chemical products and hazardous waste shall be stored and handled so that spills and leakage do not contaminate the surroundings. Tanks for storing fuel, glycol, formiate and other liquid chemical products in Swedavia’s storage facilities and parking stands shall be placed in spill containment berms. Berms shall hold at least the volume of the largest tank plus 10% of the total volume of the other tanks in the same berm. Double-walled tanks do not need to be placed in berms but shall be equipped with a functioning alarm for leakage between the walls. Storage tanks filled using a tanker shall be equipped with measurement gauges and overfill protection. | AR G-05-2013  AR G-11-2013  AR G-12-2015  AR G-13-2017  AR G-14-2013  AR A-08-2013 |
| Questions | |
| Are chemical products handled and stored in operations? | Yes  No |
| Are chemical products stored so that there is no risk they will reach soil, wastewater or surface water – in other words, they are stored in spill containment berms, on spill trays or in spaces that have no floor drain? | Yes  No |
| Are there double-walled storage tanks/cisterns? | Yes  No |
| If the answer to the above question is yes, do they have an alarm between the walls? | Yes  No |
| Are there tanks/cisterns used for storage in operations that are filled by a tanker? | Yes  No |
| If the answer to the above question is yes, do these storage tanks have measurement gauges and overfill protection? | Yes  No |
| Are packages and containers holding chemical products clearly marked with their contents? | Yes  No |
| Is there a list of chemicals handled in your operations? | Yes  No |
| Are there a procedure and absorbents in place to immediately begin clean-up and limit the spread in a spill/accident? | Yes  No |
| Is there a procedure in the event of a major spill/accident for immediately contacting the Airport Security Center (*Ledningscentralen*)? | Yes  No |
| Is used absorbent treated as hazardous waste? | Yes  No |
| Are hazardous goods handled in your operations? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work with chemicals management. | |

## Waste management

Swedavia’s goal is for all waste to be sorted to achieve material and product use that is as resource-efficient and sustainable as possible from a life cycle perspective. Sorting shall be carried out by whoever generates the waste. Waste that is especially harmful to the environment (hazardous waste) shall not be mixed with other waste.

|  |  |
| --- | --- |
| Applicable environmental condition | Applicable regulations |
| Chemical products and hazardous waste shall be stored and handled so that spills and leakage do not contaminate the surroundings. | AR G-02-2013  AR G-09-2013  AR G-11-2013  AR G-12-2015  AR G-13-2017 |
| Questions | |
| Are there space and bins for the functioning sorting of waste? | Yes  No |
| Are there procedures for and employee acceptance of the sorting of waste? | Yes  No |
| Are employees familiar with the waste sorting guide that is an appendix to AR G-09-2013? | Yes  No |
| Is hazardous waste produced in operations, for example, electric waste, batteries or oils? | Yes  No |
| Is hazardous waste stored so that it cannot contaminate soil or water, for example, in spill containment berms? | Yes  No |
| Is hazardous waste mixed with other kinds of waste? | Yes  No |
| Is there a procedure in the event of a major spill/accident for immediately contacting the Airport Security Center (*Ledningscentralen*)? | Yes  No |
| Are there a procedure and absorbents in place to immediately begin clean-up and limit the spread in a spill/accident? | Yes  No |
| Is used absorbent treated as hazardous waste? | Yes  No |
| In cases where waste is generated in handling outdoors, is there a bin or something similar to reduce the risk of litter/FOD? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work with your waste management. | |

## Atmospheric emissions

Atmospheric emissions are to a very large extent connected to the combustion of fuel. Combustion generates emissions of carbon dioxide, nitrogen oxides and particulate matter. There are regulations and requirements for what vehicles and work machinery may be used at the airport, which are thus critical to achieving emission reductions.

|  |  |
| --- | --- |
| Applicable environmental conditions | Applicable regulations |
| Swedavia shall prepare an action plan to reduce atmospheric emissions of carbon dioxide, nitrogen oxides (NOx) and particulate matter (PM10) at Stockholm Arlanda Airport, and work to implement the measures described in the action plan. The action plan shall be updated every three years and adopted by the oversight authority. An account shall be given of the measures implemented in the environmental report. Measures shall cover Swedavia’s own operations that the company has direct control over as well as operations that entail collaboration with other operators at and in the vicinity of the airport that Swedavia does not have direct control over, for example, ground transport or air traffic. | AR A-08-2013  AR A-12-2013 |
| Questions | |
| Are vehicles or work machinery used in your operations? | Yes  No |
| Are self-inspections of vehicles and work machinery carried out to ensure that environmental aspects are respected – in other words, so that emissions are determined not to exceed the manufacturer’s specifications? | Yes  No |
| Is the documentation of self-inspections carried out saved? | Yes  No |
| Is it clearly communicated in operations that vehicle engines (except for snow removal vehicles, tankers) may idle for at most one minute? | Yes  No |
| Are there any policy/guidelines for what kinds of vehicles and work machinery are to be purchased for operations in terms of the choice of fuel/energy source? | Yes  No |
| Are the requirements in Swedavia’s AR complied with in procuring/purchasing vehicles/work machinery? | Yes  No |
| Are the premises of your operations heated by an oil-fired boiler? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work to reduce atmospheric emissions. | |

## De-icing operations

The de-icing of aircraft gives rise to discharges of glycol, and to minimise the environmental effects of discharges, there are, among other things, instructions for where de-icing may take place as well as sewage systems for collection. The discharge of glycol to waterways has an adverse effect on the oxygen level since a great deal of oxygen is required to break down the glycol.

|  |  |
| --- | --- |
| Applicable environmental conditions | Applicable regulations |
| The de-icing of aircraft shall be carried out at a designated site with run-off directed into a collection system connected to the airport’s wastewater system. Swedavia shall make sure that as much as possible of the glycol that runs off the aircraft in de-icing is collected. Under the scope of self-inspections, Swedavia shall provide an account of the amount of glycol used for de-icing, the amount collected and how the amount collected is treated. | AR A-12-2013 |
| During the testing period, the indicative target for water leaving the facilities, measured at point F, shall be:  • an oxygen level of at least 5 mg/l,  • a total organic content (TOC) less than 30 mg/l (calculated as an annual average),  • a metal content that, except for copper, falls below the values for “moderate content” under the Swedish Environmental Protection Agency’s Report 4913 *Bedömningsgrunder för sjöar and vattendrag* (‘Assessment bases for lakes and waterways’),  • a content of discharged copper that falls below the value for “high content” under the Swedish Environmental Protection Agency’s Report 4913. |
| Questions | |
| Do your operations include de-icing operations? | Yes  No |
| Do your operations have a procedure that ensures de-icing only takes place in approved de-icing areas? | Yes  No |
| Is there a procedure for the period May 15-September 16 to immediately notify the Arlanda Service Center when a de-icing order has been placed? | Yes  No |
| Is there a procedure for ensuring that suction vehicles are staffed and in service before de-icing begins? | Yes  No |
| Based on the above answers, describe in the environmental plan how you work to reduce the discharge of glycol to soil and water. | |

# Environmental plan template

## Contact information and description of operations

|  |  |
| --- | --- |
| Name of operations: | |
| Contact person: | |
| E-mail address: | Telephone: |
| Date of this version of the environmental plan: | |
| Description of operations (type of service and/or production carried out): | |
| If operations have been given a decision regarding your classification and/or application for a permit for environmentally hazardous operations, this should be appended to the environmental plan. | |

|  |
| --- |
| Please note:  The environmental permit that covers Swedavia and the airport is based on a description of operations provided to the Environmental Court in conjunction with their application for an environmental permit. This means that changes in operations that entail a change in environmental impact need to be reported to the oversight authority. It is therefore important that Swedavia is aware of any significant changes that take place in your operations. Examples of such changes are:   * a major change in production volume * a change in or new kind of production/operation * use of new chemical products (volume over 500 kg/year) or if your operations begin to use chemicals that are toxic to aquatic organisms. |

## Governance, responsibilities and compliance with regulations and requirements

|  |
| --- |
| **Description of how operations are governed, for example, through a management system or operational handbooks:** |
| **Description of how operations ensure that the environmental requirements (environmental conditions and regulations) in effect are complied with and changes are communicated to the employees affected:** |
| **Description of procedure for incident reporting regarding, for example, toxic emissions or discharges:** |
| **Documentation of inspections carried out and protective measures taken is made by:** |

## Discharges to wastewater

|  |
| --- |
| **The operations’ discharges and risks of discharge of contaminants and their contents:** |
| **Description of any treatment method or other treatment of contaminated water to minimise the discharge of toxic substances to wastewater:** |
| **Description of any procedures in operations aimed at avoiding discharges to wastewater:** |
| **Inspections carried out and protective measures taken are documented by:** |

## Discharges to surface water

|  |
| --- |
| **The operations’ discharges and risks of discharge of contaminants and their contents:** |
| **Description of any treatment method or other treatment of contaminated water to minimise the discharge of toxic substances to surface water:** |
| **Description of any procedures in operations aimed at avoiding discharges to surface water:** |
| **Inspections carried out and protective measures taken are documented by:** |

## Chemicals management

|  |
| --- |
| **Operations mainly handle these kinds and quantities of chemicals:** |
| **A list of chemicals is compiled and kept updated by:** |
| **Description of the procurement process for chemical products:** |
| **Description of any procedures in operations aimed at achieving safe storage and handling of chemicals:** |
| **Inspections carried out and protective measures taken are documented by:** |

## Waste management

|  |
| --- |
| **Operations’ waste categories:** |
| **Description of how waste sorting is arranged:** |
| **Description of any procedures in operations aimed at achieving good waste sorting and waste management:** |
| **Inspections carried out and protective measures taken are documented by:** |

## Atmospheric emissions

|  |
| --- |
| **Operations mainly handle these kinds of vehicles and work machinery:** |
| **Description of what criteria are used in purchasing vehicles/work machinery in terms of the choice of fuel/energy source and atmospheric emissions:** |
| **Description of any procedures in operations aimed at achieving good maintenance/service of vehicles and work machinery:** |
| **Inspections carried out and protective measures taken are documented by:** |

## De-icing operations

|  |
| --- |
| **Operations carry out these tasks connected to de-icing:** |
| **Description of procedures for complying with regulations in AR A-12-2013 regarding de-icing operations:** |
| **Inspections carried out and protective measures taken are documented by:** |

## Appendix

Any decision regarding your classification and/or application for a permit for environmentally hazardous operations

1. When an agreement is signed or extended, Swedavia can require the company to provide an analysis, planning and self-inspections in an environmental plan within six months. The plan shall be updated if there are changes in the company’s operations or in the regulations in effect. Documentation of self-inspections shall be saved for two (2) years. [↑](#footnote-ref-2)
2. All of the airport’s environmental conditions can be found (in Swedish) here: <https://www.transportstyrelsen.se/sv/luftfart/Miljo-och-halsa/Miljoprovning-av-flygplatser/>

   [↑](#footnote-ref-3)
3. Airport Regulations (AR). These are updated on a regular basis, and the company is obliged to monitor how the changes affect the design of the environmental plan and procedures. [↑](#footnote-ref-4)