**IRAM Scoring Guidance for Macedonian Inspectors**

Risk criteria have been developed for the following 3 groups of installations:

1. Installations requiring an IPPC A permit;
2. Installations requiring an IPPC B permit;
3. Activities requiring an Elaborate.

For groups 1 and 2 we developed Impact and Operator Performance criteria that can be used in the templates of IRAM. For the Elaborates group we have developed 1 risk criteria that will determine the inspection frequency of the installations.

## Impact criteria - IPPC A

1. Type and kind of installation

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| The scoring of type and kind of installation is based on the categories that are found in annex I of the IPPC ordinance 89/05. The following categories are defined in the annex:Cat 1 – Energy industries (score 3)Cat 2 – Production and processing of metals (score 4)Cat 3 – Mineral industry (score 3)Cat 4 – Chemical industry (score 4)Cat 5 – Waste management (score 3)Cat 6 – Other activities (score 2)Asphalt is not mentioned in any of the categories but is an IPPC-A installation (score 1). |
| Score | Definition |
| 1 | Asphalt IPPC-A installation |
| 2 | IPPC-A installations under category 6 (other activities) |
| 3 | IPPC-A installations under categories 1 (energy industries), 3(mineral industry) or 5 (waste management) |
| 4 | IPPC-A installations under categories 2 (production and processing of metals) or 4 (chemical industry)  |

2. Impacts on human health or the environment

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| The scoring of Impact on human health and the environment is based on the number of minor, relevant and/or important complaints, environmental accidents or incidents in a certain period of time.The difference between minor, relevant and important is subjective and left to the inspector to decide. |
| Score | Definition |
| 0 | Max 1 minor complaint, environmental accidents or incidents in the last 5 years |
| 1 | More than 1 minor complaint, environmental accidents or incidents in the last 5 years  |
| 2 | At least 1 relevant environmental complaint, relevant environmental accident or incident in the last 5 years |
| 3 | At least 1 important or more than 2 relevant environmental complaints, environmental accidents or incidents in the last 5 years |
| 4 | At least 1 important or more than 2 relevant environmental complaints, environmental accidents or incidents in the last 2 years |

3. emissions to air

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| The scoring of emissions to air is based on the type of measurements that is needed. We distinguish between emissions to air that require only the measurements of 1 or more standard parameters (dust or PM10, NOx, SO2, CO, CO2) and the emissions that require to measure more than only standard parameters. Also the frequency of the measurements is taken into consideration.  |
| Score | Definition |
| 0 | No emissions to air, no measurements needed  |
| 1 | Emissions to air, measurements needed of standard parameters  |
| 2 | Emissions to air, measurements needed of more than only the standard parameters |
| 3 | Emissions to air, continuous monitoring or measurements of standard parameters needed at least every month |
| 4 | Emissions to air, continuous monitoring or measurements of more than standard parameters needed at least every month |

4. Releases to water

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| The scoring of releases to water is based on the substances that are released. The substances are clustered in the following 5 groups: Group 1: Standard parameters (PH, COD, BOD, Suspended matter, Chloride)Group 2: Standard parameters and Nitrate and/or PhosphateGroup 3: Heavy metalsGroup 4: Halogenated compoundsGroup 5: Others e.g. Hydrocarbons |
| Score | Definition |
| 0 | No releases to water |
| 1 | Releases to water with substances falling under group 1 |
| 2 | Releases to water with substances falling under group 2 |
| 3 | Releases to water with substances falling under group 1 or group 2 and at least one of the other groups  |
| 4 | Releases to water with substances falling under group 1 or group 2 and at least two of the other groups |

5. Off-site transfer of waste

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| The scoring of the off-site transfer of waste is based on the amount of non-hazardous or hazardous waste that is produced and transported from the site. |
| Score | Definition |
| 0 | No activity specific waste  |
| 1 | Non-hazardous waste <2,000 t/y or hazardous waste <2 t/y |
| 2 | Non-hazardous waste >2,000 t/y or hazardous waste >2 t/y |
| 3 | Non-hazardous waste >20,000 t/y or hazardous waste >5 t/y |
| 4 | Non-hazardous waste >50,000 t/y or hazardous waste >10 t/y |

6. Input of waste

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| The scoring of the input of waste is based on the amount of non-hazardous or hazardous waste that is transported to the site.  |
| Score  | Definition |
| 0 | No waste input  |
| 1 | Non-hazardous waste <2,000 t/y or hazardous waste <2 t/y |
| 2 | Non-hazardous waste >2,000 t/y or hazardous waste >2 t/y |
| 3 | Non-hazardous waste >20,000 t/y or hazardous waste >5 t/y |
| 4 | Non-hazardous waste >50,000 t/y or hazardous waste >10 t/y |

7. Quality of the local environment (air, water, noise)

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| The scoring of quality to the local environment refers to the fact of whether the quality standards for air, water and/or noise are exceeded or are in danger to be exceeded, or not. All violations of quality standards for air, water and noise shall be taken in to account. The highest violation shall be taken for scoring 3 and 4  |
| Score | Definition |
| 0 | The installation does not have any releases to air and water of substances for which environmental quality standards have been set nor does it have any noise emission.  |
| 1 | The installation is located in an area where environmental quality standards are met. |
| 2 | The installation is located in an area where at least one of the environmental quality standards is in danger to be exceeded |
| 3 | The installation is located in an area where at least 1 environmental quality standard is exceeded  |
| 4 | The installation is located in an area where at least 1 environmental quality standard is exceeded 5 times or more |

8. Sensitivity of the local environment

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| The scoring of sensitive areas is based on the distance between the installation and the sensitive area or if the area is in or outside the direct influence sphere of the installation.Sensitive areas are: Residential area, schools, kindergartens, hospitals, homes for the elderly, drinking water catchment areas, flood areas, nature conservation areas\* or FFH-areas or Bird protection areas (Natura 2000)\*, and wetland programmes\*. In case of more than one object/area the smallest distance counts.*\* shall be assessed one score lower than the others.* |
| Score | Definition |
| 0 | No sensitive areas in the surroundings or distance is >10 km |
| 1 | Sensitive areas outside the influence sphere of emissions or distance is <10 km |
| 2 | Sensitive areas within the influence sphere of emissions or distance is <5 km |
| 3 | Sensitive areas within the influence sphere of mayor accidents or distance is <0,5 km |
| 4 | Sensitive areas close to facility premises, the distance is <100 m |

9. Risk of accidents

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| The scoring of risk of accidents refers to the fact of whether the installations falls under the Seveso Directive or not.  |
| Score | Definition |
| 0 | The installation in a non Seveso installation  |
| 2 | The installations falls under the lower tier of Seveso |
| 3 | The installations falls under the upper tier of Seveso |

## Operator Performance Criteria IPPC A

1. Compliance

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| The scoring of Operator Performance is based on the number and the severity of the non-compliances that has been identified. |
| Score | Definition |
| -1 | No relevant non compliances of the installation with the permit conditions or violation of the operator duties |
| 0 | One relevant non compliance of the installation with the permit conditions or violation of the operator duties |
| 1 | More than one relevant non compliance or one important non compliance with the permit conditions or violation of the operator duties |

2. Attitude of the operator

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| The scoring of attitude of the operator is a subjective choice of the inspector regarding the operator’s attitude towards the environment.  |
| Score | Definition |
| -1 | Operator reacts immediately after recognising a condition of relevant non-compliance |
| 0 | Operator reacts after receiving a warning letter form the competent authority |
| 1 | Operator reacts only after repeated warning letters or after a formal administrative decree of the competent authority  |

3. Environmental Management System

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| The scoring for the Environmental Management System refers to whether the company has implemented an Environmental Management System according to EMAS or ISO-14001, or not.  |
| Score | Definition |
| -1 | Site is registered under EMAS or ISO-14001 and the operator is working successfully with this environmental management system |
| 0 | Site is not registered under EMAS or ISO-14001 but the operator is working successfully with an accepted environmental management system |
| 1 | Site is not registered under EMAS nor ISO-14001 and the operator is not working with an accepted environmental management system |

## Impact criteria – IPPC B

1. Type and kind of installation

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| The scoring of type and kind of installation is based on the categories that are found in annex II of the IPPC ordinance 89/05. The following categories are defined in the annex:Cat 1 – Energy industries (score 2)Cat 2 – Production and processing of metals (score 3)Cat 3 – Mineral industry (score 2)Cat 4 – Chemical industry (score 3)Cat 5 – Waste management (score 2)Cat 6 – Other activities (score 1) |
| Score | Definition |
| 1 | IPPC-B installations under category 6 (other activities) |
| 2 | IPPC-B installations under categories 1 (energy industries), 3 (mineral industry) or 5 (waste management) |
| 3 | IPPC-B installations under categories 2 (production and processing of metals) or 4 (chemical industry)  |

2. Impacts on human health or the environment

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| The scoring of Impact on human health and the environment is based on the number of minor, relevant and/or important complaints, environmental accidents or incidents in a certain period of time.The difference between minor, relevant and important is subjective and left to the inspector to decide. |
| Score | Definition |
| 0 | Max 1 minor complaint, environmental accidents or incidents in the last 3 years |
| 1 | More than 1 minor complaint, environmental accidents or incidents in the last 3 years  |
| 2 | At least 1 relevant environmental complaint, relevant environmental accident or incident in the last 3 years |
| 3 | At least 1 important or more than 2 relevant environmental complaints, environmental accidents or incidents in the last 3 years |

3. Emissions to air

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| The scoring of emissions to air is based on the type of measurements that is needed. We distinguish between emissions to air that only require measurements of 1 or more standard parameter (dust or PM10, NOx, SO2, CO, CO2) and the emissions that require to measure more than only standard parameters. Also the frequency of the measurements is taken into consideration.  |
| Score | Definition |
| 0 | No emissions to air, no measurements needed  |
| 1 | Emissions to air, measurements needed of standard parameters  |
| 3 | Emissions to air, measurements needed of more than only the standard parameters |

4. Releases to water

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| The scoring of releases to water is based on the substances that are released. The substances are clustered in the following 3 groups. Group 1: Standard parameters (pH, COD, BOD, Suspended matter, Chloride)Group 2: Standard parameters and Nitrate and/or PhosphateGroup 3: All other releases: e.g. Heavy metals, Halogenates compounds or Hydrocarbons  |
| Score | Definition |
| 0 | No releases to water |
| 1 | Releases to water with substances falling under group 1 |
| 2 | Releases to water with substances falling under group 2 |
| 3 | Releases to water with substances falling under group 3  |

5. Off-site transfer of waste

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| The scoring of the off-site transfer of waste is based on the amount of (hazardous) waste that is produced and transported from the site. |
| Score | Definition |
| 0 | No activity specific waste  |
| 1 | Non-hazardous waste <2,000 t/y or hazardous waste <2 t/y |
| 2 | Non-hazardous waste >2,000 t/y or hazardous waste >2 t/y |
| 3 | Non-hazardous waste >20,000 t/y or hazardous waste >5 t/y |

6. Input of waste

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| The scoring of the input of waste is based on the amount of non-hazardous or hazardous waste that is transported to the site.  |
| Score  | Definition |
| 0 | No waste input  |
| 1 | Non-hazardous waste <2,000 t/y or hazardous waste <2 t/y |
| 2 | Non-hazardous waste >2,000 t/y or hazardous waste >2 t/y |
| 3 | Non-hazardous waste >20,000 t/y or hazardous waste >5 t/y |

7. Quality of the local environment (air, water, noise)

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| The scoring of quality to the local environment refers to the fact of whether the quality standards for air, water and/or noise are exceeded or are in danger to be exceeded, or not. All violations of quality standards for air, water and noise shall be taken in to account. The highest violation shall be taken for scoring 2 and 3  |
| Score | Definition |
| 0 | The installation does not have any releases to air and water of substances for which environmental quality standards have been set nor does it have any noise emission.  |
| 1 | The installation is located in an area where environmental quality standards are met. |
| 2 | The installation is located in an area where at least one of the environmental quality standards is in danger to be violated |
| 3 | The installation is located in an area where at least 1 environmental quality standard is violated  |

8. Sensitivity of the local environment

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| The scoring of sensitive areas is based on the distance between the installation and the sensitive area or if the area is in or outside the direct influence sphere of the installation.Sensitive areas are: Residential area, schools, kindergartens, hospitals, homes for the elderly, drinking water catchment areas, flood areas, nature conservation areas\* or FFH-areas or Bird protection areas (Natura 2000)\*, and wetland programmes\*. In case of more than one object/area the smallest distance counts.\*: Shall be assessed one score lower than the others. |
| Score | Definition |
| 0 | No sensitive areas in the surroundings or distance is >5 km |
| 1 | Sensitive areas outside the influence sphere of emissions or distance is <5 km |
| 2 | Sensitive areas within the influence sphere of emissions or distance is <0,5 km |
| 3 | Sensitive areas close to facility premises, the distance is <100 m |

## Operator Performance Criteria– IPPC B

1. Compliance

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| The scoring of Operator performance is based on the number and the severity of the non-compliances that have been identified. |
| Score | Definition |
| -1 | No relevant non compliances of the installation with the permit conditions or violation of the operator duties |
| 0 | One relevant non compliance of the installation with the permit conditions or violation of the operator duties |
| 1 | More than one relevant non compliance or one important non compliance with the permit conditions or violation of the operator duties |

2. Attitude of the operator

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| The scoring of attitude of the operator is a subjective choice of the inspector regarding the operator’s attitude towards the environment.  |
| Score | Definition |
| -1 | Operator reacts immediately after recognising a condition of relevant non-compliance |
| 0 | Operator reacts after receiving a warning letter form the competent authority |
| 1 | Operator reacts only after repeated warning letters or after a formal administrative decree of the competent authority  |

3. Environmental Management System

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| The scoring for the Environmental Management System refers to whether the company has implemented an Environmental Management System according to EMAS or ISO-14001, or not.  |
| Score | Definition |
| -1 | Site is registered under EMAS or ISO-14001 and the operator is working successfully with this environmental management system |
| 0 | Site is not registered under EMAS or ISO-14001 but the operator is working successfully with an accepted environmental management system |
| 1 | Site is not registered under EMAS nor ISO-14001 and the operator is not working with an accepted environmental management system |

## Risk Criteria – Elaborate

1. Type and kind of installation

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| The scoring of type and kind of installation depends on whether besides the elaborate, a permit is needed from MoEPP to satisfy some of the sectoral legislation, or not.In case such additional permit from MoEPP is needed the installation scores 2 points. In case a permit from MoEPP is not needed the installation scores 1 point.  |
| Score | Definition |
| 1 | Activities requiring elaborates that do not need additionally a permit from the competent authority to satisfy some of the sectoral legislation (e.g. permit for recycling of some kind of waste) |
| 2 | Activities requiring Elaborates that need additionally a permit from the competent authority to satisfy some of the sectoral legislation (e.g. permit for recycling of some kind of waste) |

Score 1 = min 1 inspection in 36 months

Score 2 = min 1 inspection in 24 months

For these installations we recommend not to assess the risk in IRAM but keep the frequency of the inspections based on the criteria above unless a non-routine inspection needs to be executed because of complaints, accidents or incidents.