

Industrial Emissions Directive: Lack of access to continuous emission monitoring data

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This analysis was prepared by the Frank Bold Society (hereinafter “**FBS**”) as background material for the purposes of the ongoing update of Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control, hereinafter “**IED**”).

The aim of this analysis is to document the lack of public access to information regarding the emission data obtained via the continuous monitoring system. Specifically, it focuses on the one-hour, daily and monthly emission averages, which are used to assess emission limit compliance. The analysis provides a basic description of the **legal background**, followed by **case studies** from the Czech Republic, Poland and Slovenia.

The analysis shows that in the aforementioned Member States there seems to be significant deficiency in public access to emission data. This information is kept by the operator and therefore cannot be subject to public scrutiny. The detailed information is only accessible to the responsible authorities during inspection visits, however, these do not provide enough time for the authorities to examine the data thoroughly, or upon the request of the authority, which does not happen in practice. The analysis also shows that there is lack of information as to which operation conditions were (not) included during the averaging process. Further lack of clarity about detailed emission data also stems from the different interpretation of the measurement uncertainty subtraction.¹

Key recommendations based on the analysis are:

- The IED should explicitly state that data from continuous emission monitoring (hourly, daily and monthly averages) **should be continuously (or at least regularly, e.g. on a weekly basis) reported by operators to the responsible authorities**, with automatic emission limit compliance control.
- The IED should **explicitly guarantee the right of the public to have access to emission data**.
- The IED should **unify the definition of (other than) normal operating conditions**, the **rules for excluding** these situations from regular emission reporting, and the obligation of operators to report these incidents to the responsible authorities.

¹ In this regard please refer to our report „Industrial Emissions Directive: Measurement uncertainty issues“ from 29. 1. 2020.

More information on the topic of access to information was also gathered by the European Environmental Bureau in their reports and articles.² A solution was proposed in the Industrial Plants Data Viewer.³

1. Relevant provisions of the IED

Proper emission monitoring is the first step to ensuring emission limit compliance and mitigation of environmental impacts of industrial facilities. According to the IED, the concentrations of SO₂, NO_x and dust in waste gases of combustion plants and waste incineration plants shall be measured continuously.⁴

Article 39 of the IED, which regulates compliance with emission limits, refers to Annex V, part 4. Point 1 a)-d), which read as follows:

"1. In the case of continuous measurements, the emission limit values set out in Parts 1 and 2 shall be regarded as having been complied with if the evaluation of the measurement results indicates, for operating hours within a calendar year, that all of the following conditions have been met:

*(a) no validated **monthly average** value exceeds the relevant emission limit values set out in Parts 1 and 2;*

*(b) no validated **daily average value** exceeds 110 % of the relevant emission limit values set out in Parts 1 and 2;*

(c) in cases of combustion plants composed only of boilers using coal with a total rated thermal input below 50 MW, no validated daily average value exceeds 150 % of the relevant emission limit values set out in Parts 1 and 2,

*(d) 95 % of all the validated **hourly average values** over the year do not exceed 200 % of the relevant emission limit values set out in Parts 1 and 2."* (emphasis added)

In other words, the **validated monthly, daily, and hourly average values** must not exceed the relevant emission limits. The information on measured monthly, daily and hourly emissions is therefore **crucial for emission compliance assessment**.

Article 38 of the IED focuses on combustion plants' emissions into air. It states that:

"1. Member States shall ensure that the monitoring of air polluting substances is carried out in accordance with Part 3 of Annex V.

2. The installation and functioning of the automated monitoring equipment shall be subject to control and to annual surveillance tests as set out in Part 3 of Annex V.

² See e.g.: <https://meta.eeb.org/2020/10/22/industrial-pollution-its-time-to-enter-the-digital-age/>, or: <https://eeb.org/library/burning-the-evidence-a-case-study-on-large-combustion-plants/>.

³ See: <https://eeb.org/library/industrial-plants-data-viewer-background-briefing/>.

⁴ See annex V part 3 and annex VI Part 6 of the IED.

3. *The competent authority shall determine the location of the sampling or measurement points to be used for the monitoring of emissions.*

4. **All monitoring results shall be recorded, processed and presented in such a way as to enable the competent authority to verify compliance with the operating conditions and emission limit values which are included in the permit.** (emphasis added)

Furthermore, this area is closely connected to recital 26, which states:

“In order to ensure the effective implementation and enforcement of this Directive, operators should regularly report to the competent authority on compliance with permit conditions. Member States should ensure that the operator and the competent authority each take necessary measures in the event of non-compliance with this Directive and provide for a system of environmental inspections. Member States should ensure that sufficient staff are available with the skills and qualifications needed to carry out those inspections effectively.” (emphasis added)

Article 8 of the IED imposes an obligation on **Member States to „take the necessary measures to ensure that the permit conditions are complied with“**. The article further focuses on the event of breach of such conditions. According to Art. 24(3) section b) of the IED, the competent authority shall make available to the public the results of emission monitoring as required under the permit conditions and held by the competent authority.

Emission limits also **only apply to “normal operating conditions”** (see Art. 3(13) of the IED). According to Art. 14 of the IED, measures relating to conditions other than normal operating conditions (such as start-up and shut-down operations, leaks, malfunctions, etc.) should be regulated by the permit. These situations are not included into the hourly, daily, monthly or yearly emission averages.

Other chapters of the IED impose different rules on emission reporting, e.g. Art. 62 for installations using organic solvents, Art. 46-49 for waste incineration plants or Art. 70 for installations producing titanium dioxide. The analysis focuses on the provisions regulating large combustion plants, because the relevant case studies are also focused on this sector.

To summarize in relevance to this analysis, emission data must be presented in such a way that it enables their verification. Member States must **take necessary measures to ensure that the emission limits are complied with and that the relevant system of inspections is effective.**

2. National case studies

a) Lack of access to information on detailed emission data in the Czech Republic

This case study demonstrates that public access to data on industrial emissions in the Czech Republic is restricted only to annual emission averages. The public **does not have access to the half-hourly,⁵ daily and monthly emission averages**, which are needed in order to monitor compliance with emission limits. Regional authorities responsible for emission limit compliance monitoring also do not possess this data, and for the purpose of compliance control they *de facto* use only annual reports in which operators pledge that all half-hourly, daily and monthly emission limits have been complied with, without having to provide any evidence of this. Operators are obligated to store detailed data about their emissions, but the Czech authorities only have access to these during inspection visits.

In October of 2018 Frank Bold Society issued a request for environmental information regarding the validated monthly, daily, and half-hourly average values⁶ for NO_x, SO₂ and dust emitted from Počerady and Tušimice lignite power plants in the years 2016 and 2017. The **regional authority refused this request**, stating that this information is not held by the authority.⁷ The regional authority also held that it is not obliged to request this information from the operator so that it could be provided to Frank Bold Society. The **Czech Ministry of the Environment** as an instance of appeal **confirmed this decision** in July of 2019.⁸

Therefore, according to the Czech authorities, it is not possible for the general public to access the information regarding emissions of SO₂, NO_x and dust which would be necessary to assess emission limits compliance. The only data available to the public is the yearly summary operation report, which includes only the total amount of emissions for a given year. The case **was brought before court** by Frank Bold Society, but the **proceedings in the first instance are still pending.**⁹

Before the administrative court, Frank Bold Society argues that:

- The **regional authority** is obligated to control emission limits compliance and therefore it **should have** the validated monthly, daily and half-hourly average values **at its disposal**.
- The fact that the information is in practice kept by the operator does not in any way preclude the right of the public to have access to this information, or the obligation of the authority to request this information from the operator, so that it can be provided to the public.

This case study shows not only the lack of access to information, but also that there is **not sufficient state-ensured control of compliance with emission limits** at the level of monthly, daily and half-hourly emission values. The only report that the regional authority receives is the summary operation report, which does not include detailed emission data. It was clearly stated in the response of the

⁵ The Czech legislator has modified the IED's requirements and prescribes the obligation not to overcome 200 % of the yearly emission limit on a half-hour basis. See regulation of the Ministry of Environment, no. 415/2012 Coll.

⁶ Czech transposition via the Air protection Act differs from IED at this point.

⁷ Decision of Ústecký kraj Regional authority, no. KUUK/28696/2019/ZPZ, case no. 3755/ZPZ/2018/IN-282/Rc, of 5. 3. 2019.

⁸ Decision of the Ministry of Environment, no. MZP/2019/530/1008, case no. ZN/MZP/2019/530/79, of 25. 7. 2019.

⁹ The court proceedings is held before Ústí nad Labem Regional Court, case no. 16 A 31/2019.

regional authority and the Ministry of the Environment that monitoring is carried out mainly by the operator itself, and occasionally by Czech environmental inspectors via non-regular visits to the facility. Since the detailed emission reports are very complex, Frank Bold Society does not consider the Inspection visits to be a very reliable way to monitor emission compliance at a detailed level. Even if such a means of control was effective, according to the integrated prevention information system the Inspection visits to these facilities occurred approximately once every 3 years, which is not sufficient.

b) Lack of access to information on detailed emission data in Poland

Similar to case study a), in Poland, Fundacja Frank Bold filed a request to **access to a range of information necessary to assess actual compliance with the emission standards** under the IED, such as: confidence intervals for monitoring results, the last calibration protocol, and one-hour average emission values for coal power plants. In all of these cases, the responsible authorities **refused to provide access to the information**, indicating that they did not have it, and operators of installations are not explicitly required by law to submit such documents to the authorities. The requested information is only available to the authorities during inspection visits, but is kept with the operator and cannot be reviewed by the public.

In 4 cases Fundacja Frank Bold challenged the decision of the authorities before administrative courts. Administrative courts take a divergent stance in this respect; however, what is important is that the **Supreme Administrative Court supported the position of the administrative authorities** in all the cases that it has already examined.¹⁰ Only one of the Provincial Administrative Courts presented a different standpoint and quashed the authority's refusal to provide information. However, its verdicts are not in force until they have been reviewed by the Supreme Administrative Court.

The approach of the Authority, which was upheld by the Supreme Administrative Court, is very rigorous and legalistic. Even if the requested information is considered environmental information, the national regulations do not provide for a very clear and precise obligation to submit this information to the authorities. **It is therefore impossible for the public concerned to obtain this environmental information** (e.g. one-hour emission values). Similar to case study a), this example also shows that the responsible authorities themselves do not have permanent unlimited access to the detailed emission data which would be necessary for proper emission limit compliance control.

c) Extreme events in emissions not reported in the Czech Republic and Slovenia

Since **the IED does not contain a definition** of either "normal operating conditions" or "other than normal operating conditions", there is significant flexibility for Member States on how to approach

¹⁰ See e.g. judgment of the Supreme Administrative Court of Poland, 4 September 2018 (ref: II OSK 1819/18).

this issue. In practice, extraordinary events at industrial installations often cannot be measured properly by the calibrated measuring equipment used for regular operational monitoring. This is a result of completely objective reasons; the devices can technically only measure a certain range. It is therefore understandable, that these values should be excluded from the regular emission monitoring end reporting process.

However, the issue that we have identified in the Czech Republic and Slovenia is that there are **no unified specific rules** for operators on which situations are considered “other than normal operating conditions” or how many hours per year (either as an absolute limit or as a % of operating hours) can be marked as “other than normal operating conditions” and therefore excluded from reporting. Also, there is **not enough information available to the authorities and the public** about how many hours were considered “other than normal operating conditions” and what emission concentrations were reached during these hours.

In the Czech Republic, the rules for reporting “other than normal operating conditions” for individual plants are enshrined in their respective operating codes, which are only available to the public upon request. Frank Bold Society inspected several of these operating codes and found that the **rules differ between installations**. Analysis also showed that not all situations which are marked as “other than normal operating conditions” have to be reported to the responsible authorities. It is therefore impossible for the authority or the public to ascertain how many hours of “other than normal operating conditions” were actually excluded from emission reporting in a given year. It is also impossible to verify whether these values were excluded justifiably, since this decision depends on the evaluation of the operator alone.

In Slovenia, extraordinary events, in which emissions increase so much that the measuring instruments either cannot determine the quantity of measured substances or completely malfunction, are also not included in operational monitoring reports.¹¹ The official reason for that is that the device malfunctioned and thus correct measurements cannot be determined. The real emissions from such industrial operations therefore remain unmapped.

This case study suggests that the definition and rules for evaluating and reporting “other than normal operating conditions” should be **unified in the IED, including the right of the public to access information** on these situations in a detailed and timely manner.

¹¹ For further information in Slovenian, please see:

https://www.gov.si/assets/ministrstva/MOP/Dokumenti/Industrijsko_oznazenje/obratovalni_monitorint_emisij_primerjalna_analiza.pdf.

3. Conclusions

These case studies prove that access to information regarding emission data is very limited in all the examined countries. Therefore, Frank Bold Society recommends the following amendments of the IED:

- 1. An obligation for operators to disclose a continual supply of detailed (hourly or half-hourly averaged) emission data to the competent authorities via a specific virtual storage system designated for this purpose should be added to the provisions related to emission data reporting (such as Art. 38, 62, 46-49 and 70 of the IED).** While it is stated in recital 26 that “operators should **regularly** report to the competent authority on compliance with permit conditions,” both Article 38 and Article 8 of the IED are rather vague regarding the frequency and form of emission reporting to competent authorities. Frank Bold Society perceives this as an indirect contradiction of the aforementioned recital since such vagueness creates space for Member States to create ineffective legislation regarding emission limits compliance control. As was pointed out in case studies a) and b) – since Member States bypass the obligation of monitoring by leaving it to non-regular Inspection visits or requiring operators to present such data only upon request, competent authorities do not hold such data and therefore are not obligated to make them available to public (Art. 24(3)b IED and Art. 3(1) of Directive 2003/4/EC). This leads to a situation in which **neither the authorities nor the public conduct effective control** of compliance with emission limits. Through concretisation of the reporting process this inefficiency of monitoring and lack of public access can be avoided.
- 2. Establish a specific process of control of compliance with emission limits at an hourly, daily and monthly level through an automatised computer system connected to virtual storage where emission data is sent.** Considering the complexity of such data it would be misleading to presume that competent authorities have the capacity to control it manually. Such an amendment would also prevent further inefficiencies in this area.
- 3. Establish a “best available technique” for an electronic report interface for emission and other performance standards for annual compliance reports** (Art. 14 of the IED), from which the European Environment Agency or the public could directly extract all available data, such as emission limit values, data on emissions, etc. Shorter averaging periods for emission reporting should be preferred.
- 4. Amend Art. 24 of the IED in such a way as to ensure public access to the emission data database mentioned above.** Without establishing a specific process in this area, the competent authorities may refuse to grant such access on the grounds of the too extensive nature of emission monitoring results. It should be clearly stated in the IED that direct emission monitoring results shall be accessible to the public via the internet.
- 5. Include a definition of either “normal operating conditions” or “other than normal operating conditions”, and also specific rules on the assessment and reporting of these situations.** The public should have access to information about how many hours were excluded from emission reporting by operators and why, and what emission concentrations were measured during these periods.

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Note: Research has been carried out in cooperation with NGOs and public authorities from the Czech Republic (Frank Bold Society), Poland (Fundacja Frank Bold) and Slovenia (PIC).

All the reference documents are available upon request.