Universiteit Leiden
The Netherlands

Overheidstoezicht op BRZO-bedrijven: een onderzoek naar de kwaliteit

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Citation
Veld, R. A. in 't. (2022, March 30). *Overheidstoezicht op BRZO-bedrijven: een onderzoek naar de kwaliteit*. Retrieved from https://hdl.handle.net/1887/3281177

Version:	Publisher's Version
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Downloaded from:	https://hdl.handle.net/1887/3281177

Note: To cite this publication please use the final published version (if applicable).

Government oversight of Brzo-companies; an investigation into the quality

Summary

There are approximately 400 companies in the Netherlands that handle such large quantities of hazardous substances that they can cause a so-called serious accident. In a European context, regulations specifically aimed at prevention have been drawn up for these types of companies. These European regulations have been implemented in the Netherlands in the Major Accident Hazards Decree (Brzo).
In the companies that fall under this Brzo, incidents, near-accidents and accidents regularly take place, in which, in addition to environmental damage and damage to movable and immovable property, unfortunately also injuries and deaths are to be regretted, for the most part among the employees and hired workers involved. Since 1945, these have been 172 dead and 1,719 injured in the Netherlands. When these kinds of figures are considered over a period of decades, it is very difficult, if any, to detect trends.

Reports by the government regulators as published annually by their partnership BRZO + show that on average 60% of the Brzo companies are found to be in violation of legislation and regulations (BRZO+, 2020, 2021) and that this percentage increases to 92% when and is considered over several years (M. H. A. Kluin et al., 2018; M. H. A. Kluin et al., 2020). These percentages have hardly changed in recent years, so that no trends can be derived from them.

Initiatives have been taken by companies and their industries to improve the situation through programs. In 1985 an international association in the chemical industry launched the "Responsible Care" program, aimed at improving the safety performance of the affiliated companies. The "Safety First" program started in 2011 as an initiative of a number of Dutch industry and employers' organizations (VNO/NCW et al., 2011). This program contains 10 action points to improve the safety performance of the affiliated companies. Finally, in 2016 the Sustainable Safety 2030 program (a partnership between government, industry organizations and science) was launched. This program is aimed at a structural collaboration between the aforementioned parties in the (petro) chemical sector and has five so-called roadmaps in which concrete activities, pilots and research take place. The program was ended at the end of 2020. The parties have now decided to continue with each other and have set up the Safety Delta Netherlands (SDN) for this purpose (Ministerie I&W, 2020c; Safety Delta Nederland, 2020).

Despite the great efforts that many companies and their industries are making to improve safety performance, an image is emerging that indicates that progress is being made with regard to certain aspects, but that progress is generally limited and that in the event of incidents and accidents, the same underlying causes can be continuously identified and the same violations of laws and regulations can be established.

In addition to companies and their branches, the government also has a responsibility to bring the Brzo-companies to compliance. The protection of citizens against dangers from the environment can even be regarded as a core task of the government on the basis of the Constitution, Article 21 (Biezeveld, 2002). Important instruments that the government can use in this regard are legislation, oversight and enforcement.

There are some doubts as to whether the government is able to fulfill this role adequately. These doubts have arisen as a result of a number of incidents and accidents, long-term

cutbacks in the government apparatus, the withdrawal of the government and the transfer of responsibility to the companies themselves and the fragmentation of implementation across a large number of departments, levels of government, implementing organizations and regulators (Ale & Mertens, 2012). In addition, evaluations and research reports reported a range of problems, such as administrative pressure, coordination and cooperation problems, ineffectiveness, inefficiency, doubts about sufficient expertise and doubts about sufficient independence (Gemengde Commissie Bestuurlijke Coordinatie (PAO), 2005; in 't Veld, 2009).

Initiatives have also been developed within the government to achieve improvement.
For example, the BeteRZO program was started in 2004 with the aim of achieving better cooperation between the oversight partners, achieving standardization in working methods and methods, providing targeted training, providing joint risk analyzes and joint reports and safeguarding the level of knowledge and expertise (Ministerie van VROM, 2004). This program eventually led to the formation of a structural partnership, which is now referred to as BRZO +.
An agreement was concluded in 2009 between the national government, the Inter Provincial Consultation (IPO) and the Association of Dutch Municipalities (VNG), which attempted to improve the quality of the performance of tasks in the areas of licensing, oversight and enforcement (VTH) by drawing up quality criteria with regard to the expertise of the inspectors.
In addition, in the years 2013-2014 Environmental Services (ODs) were established, which carry out the VTH tasks on behalf of the Provincial competent authority (Commissie Herziening Handhavingsstelsel VROM-regelgeving (Cie Mans), 2008). Of these ODs, six have been designated to perform the VTH tasks for the Brzo companies. The Safety Regions have also been established since 2010.
Finally, the companies that until then were subject to municipal authority were brought under provincial authority in 2016.
The problem definition described above serves as the basis for this dissertation and is described in **Chapter 1**. Note: Every effort has been made to include the most current data in this dissertation. These have been processed until October 1, 2021.

In order to determine the current state of affairs by the government, after all the developments described, of its task of by means of oversight (and enforcement) bringing the Brzo-companies to compliance with the laws and regulations an investigation has been conducted into this.

The central research question is: **Is the quality of the current supervision and enforcement by the government such that companies that work with large quantities of hazardous substances are brought into compliance with legislation and regulations?**

The general research question can be divided into the following sub-questions:

1. Is the above-mentioned oversight and enforcement carried out effectively?
2. Is the above-mentioned oversight and enforcement carried out efficiently?
3. Is the above-mentioned oversight and enforcement carried out professionally?

The design and structure of the research are described in **chapter 2**. A qualitative case study was chosen, in which five Brzo-inspecting services, namely the Social Affairs and Employment Inspectorate (ISZW) / Major Hazard Control (MHC) department, North Sea

Canal Area Environment Agency (OD NZKG), Central and West Brabant Environment Agency (O MWB), South Holland South Safety Region (VR ZHZ) and Amsterdam Amstelland Safety Region (VR AA) as cases have been selected. Document analysis and semi-structured interviews have been used in these cases as research methods.
A conceptual model has been drawn up based on the theory. This model formed the basis for the structuring of the document analysis and the interviews and provided the basis for the sub-questions derived from the central research question, in which the concepts of effectiveness, efficiency and professionalism are central. The results are described per case and the main findings of the five cases are summarized. Value and applicability of the model have been analyzed. The descriptions have been validated by submitting them to all interviewees. Finally, conclusions were drawn and recommendations formulated.

The basis for oversight and subsequent enforcement action is assessment against the obligations arising from the legislation. This legislation is described in **chapter 3**. A distinction can be made here between the general laws that apply to all companies in this country (such as the Working Conditions Act for occupational safety and the Environmental Management Act (Wm) / General Provisions Environmental Law (Wabo) for the environmental safety) and the more specific laws that only apply to the group of companies with large quantities of hazardous substances, namely the Brzo and the External Safety Establishments Decree (Bevi). The latter decrees regulate more aspects of process safety and are implementations in Dutch law of the European "Seveso" directive. (Note: The Bevi plays a role with regard to land use planning).

The "Seveso" directive has been implemented in the Netherlands in the Brzo and the Bevi. The Brzo is based on the Working Conditions Act, the Wm / Wabo system and the Safety Regions Act (Wvr). (Note: The Bevi is based on the Wm / Wabo system and the Spatial Planning Act (Wro)). As a result, responsibilities for the safety situation in Brzo companies have been assigned to the departments of Social Affairs and Employment (SZW), Infrastructure and Water Management (I&W) and Justice and Safety/Security (J&V), the 12 provincial competent authorities, the 25 Safety Regions (VRs), the six Brzo-ODs designated for Brzo oversight and the Inspectorate SZW (ISZW). In addition, the Human Environment and Transport Inspectorate (ILT) and the J&V Inspectorate function as second-line supervisors.
In this context, the joint inspections of the Brzo companies are carried out by inspectors from ISZW, the OD and the VR. In situations in which the quality of the surface water is also at stake, the water quality manager (Rijkswaterstaat (RWS) or the Water Board) can also participate in the inspection as an advisor to the OD when granting permits. The Public Prosecution Service (OM) also plays a role in criminal enforcement.

In the last decades of the last century a number of political / social developments became manifest. The aim was a smaller government, fewer government tasks, more room for the market and business, privatization of government tasks and deregulation of legislation and regulations. In addition to all this, substantial cutbacks were also made (Algemene Rekenkamer, 2013; Ayres & Braithwaite, 1992; Kickert, 1996). In this context, the government became more remote and efforts were made to promote self-regulation and self-motivation by the business community, for example by means of the system of certification and accreditation (Evers, 2002; Kickert, 1991). These developments are described in **Chapter 4**. Proponents of these developments considered it a necessary reform and a start to the restoration of trust between politics and society, while opponents refer to it as concealing cutbacks (Raad voor Maatschappelijke Ontwikkeling, 2006).

As a result of the above, the responsibility for safety also shifted from the government to the companies. Clear agreements have never been reached about how far this shift should go in practice (Stichting Maatschappij en Veiligheid, 2014, 2017, 2018; van Vollenhoven, 2006; Wetenschappelijke Raad voor het Regeringsbeleid, 2011). In this context, systems thinking has also gained solid ground and concepts such as management systems and (safety) management systems (VBS) have become generally good.

The government has attempted to further steer this shift in responsibilities with a number of projects. In 1994, the Market Operation Deregulation and Legislative Quality (MDW) program was introduced (Kabinet Kok I, 1994). The program aimed to simplify legislation, strengthen market forces, reduce restrictions on competition and reduce administrative burdens (Project Marktwerking, 1995). The program led to a paradigm shift in employment protection legislation with the introduction of the Working Conditions Act that entrusted primary responsibilities to employers and employees and the government withdrew to a mere directing role. In 2003, the Other Government Program (PAO) followed, which aims to improve services, reduce bureaucracy, increase openness, transparency and effectiveness, reduce administrative pressure, further decentralization and focus more on self-regulation (Kabinet Balkenende II, 2003). Subsequently, the Uniform Oversight Program, which later became the Oversight Renewal Program, was started in 2006 (Kabinet Balkenende IV, 2006). This program aimed to reduce the oversight burden, create inspection domains and set up an Inspection Council in which all Inspectors General (IG) of the State Inspectorates would sit. Finally, in 2007 the Civil Service Renewal Program was created, which was intended to lead to better policy, less compartmentalized policy and a smaller and more efficient government. Strict targets were also imposed on the departments (Ministerie BZK, 2007).

The above developments have also influenced thinking about the function, content and effect of oversight on compliance with legislation and regulations (see **Chapter 5**). There are a number of definitions of the concept of oversight. In this dissertation, the following definition is used: "Oversight is the collection of information about whether an action or matter meets the requirements set for it, then passing judgment on it and possibly intervening as a result thereof" (2e Kamer, 2001; Ambtelijke Commissie Toezicht Borghouts, 2001). The definition is based on predetermined requirements (legislation and regulations), emphasizes the process-based nature of oversight (collecting information, testing against the standard, making an opinion, possibly intervening) and indicates that enforcement is regarded as part of oversight. The interest in oversight, the number of inspectorates and the amount of oversight carried out have increased in recent decades, but this is mainly the case with so-called market oversight, as many government tasks are left to the market. The amount of compliance monitoring, on the other hand, has been affected by the budget cuts.
The right amount of compliance oversight has been discussed for years (Steenhuizen & v.d. Voort, 2012). On the one hand, there is a call for a reduction of the oversight burden (business, employers), on the other hand there is a call for more oversight (employees, environmental movement, politics). Especially after incidents and accidents, this discussion flares up again (Stichting Maatschappij en Veiligheid, 2016). This constitutes an oversight paradox.

The so-called system oversight has developed as a result of the promotion of the self-reliance of companies, which is reflected, among other things, in the widespread use of management systems. In this system oversight, the management systems of the company or organization are the starting point for oversight (de Bree, 2010; Helderman & Honingh, 2010). Advantages

of system oversight are its predictive nature (because it is based on the underlying causes of incidents and accidents), that it provides a broad view of what is subject to oversight, that it is more efficient (and therefore cheaper), is well aligned with "modern" legislation (with target provisions) and that it promotes self-efficacy. The disadvantages mentioned are that it provides too much freedom for companies (which they cannot always handle properly), the burden of oversight is not reduced, but merely shifts (from the government to the companies) and cannot do without reality checks.

Enforcement is also discussed as the last phase of the oversight process. There are many views on how the concept of enforcement should be given shape. These can vary from strictly following the rules, acting in a distant, businesslike and repressive way, assuming suspicion, coming out transparently and safeguarding the independent position, to understanding negotiation, compassion, being cooperative, assuming trust and operating discreetly on the other. In practice, this leads to three enforcement styles, with strict enforcement and punishment on the one hand, negotiating, guiding and advising on the other, and a flexible approach whereby, depending on the situation encountered in the company, a choice can be made between these styles (Hawkins, 1990; Nielsen, 2007; Pearce & Tombs, 1990). There is no hard evidence as to which style is most effective (Mascini & van Wijk, 2009).

In order to be able to answer the general research question, it must first be indicated what is meant by "good" oversight (see **Chapter 6**). The terms effectiveness and efficiency are part of the efficiency thinking that took root in the 1970s and 1980s, first in the private sector, but later also in the government. The ideas included concepts such as smaller government, fewer government tasks, more room for the market and business, privatization of government tasks, decentralization, deregulation, globalization, no-nonsense policy, etc. (Bekke, Kickert, & Kooiman, 1995). Business management forms were introduced into the government apparatus. Internationally, this movement is known as "New Public Management (NPM)". Efficiency is often related to the relationship between the input and the resulting output, while effectiveness is related to the relationship between the goals set and the outcome achieved through the process (Haselbekke, 1990; Verlet & Devos, 2008, 2010). For further operationalization, it is necessary to search for parameters and criteria or indicators. Parameters and indicators specifically targeting government regulatory bodies can be distilled from a variety of sources. First of all, parameters can be found in reports from various Committees (Ambtelijke Commissie Toezicht Borghouts, 2001; Commissie Bestuursrechtelijk en Privaatrechtelijk Handhaven (Commissie Michiels), 1998; Commissie Herziening Handhavingsstelsel VROM-regelgeving (Cie Mans), 2008; Gemengde Commissie Bestuurlijke Coordinatie (PAO), 2005), in reports by, for example, the Netherlands Court of Audit (Algemene Rekenkamer, 1998, 2002, 2005, 2008, 2011) and the Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid, 2013) and in scientific articles, books and reports (Ale & Mertens, 2012; Biezeveld, 2010; Eijlander et al., 2002; Mertens, 2006, 2008, 2010, 2011; Robben, 2010, 2011; Versluis, 2003; Welp, 2012; Winter, 2010, 2012; Winter & De Ridder, 2010). Furthermore, the national government itself has attempted to define the requirements for proper oversight by means of a Framework Vision on Supervision (2e Kamer, 2001, 2005a). This resulted in the parameters being selective, decisive, collaborative, independent, transparent and professional. Similar parameters are also mentioned by others (Commissie Bestuursrechtelijk en Privaatrechtelijk Handhaven (Commissie Michiels), 1998; OECD, 2014). Finally, the Inspection Council has also formulated a vision on good oversight (Inspectieraad, 2016, 2017b, 2018, 2019a, 2019b). In this vision, parameters such as the public interest, a signaling role and setting the agenda, transparent, professional and independent are central. In all this it is striking that "good"

oversight is almost always described in preconditions and process-related elements. A common denominator is formed by categorizing these elements and parameters in the concepts of effectiveness, efficiency and professionalism.

After classification, merging and selection, all the elements and parameters mentioned have been brought together in a conceptual model:

Good oversight is:	Parameters	Criteria
Effective	Works based on an explicit policy	• Puts public interest first • Measure compliance levels and formulate desired level • Determines oversight effort on the basis of risk analyzes • Takes a signaling and agenda-setting role
	Is aimed at achieving results	• Is decisive (hard where necessary, soft where possible) • Promotes self-motivation (proactivity)
	Is accountable	• Measure effects (output, outcome, social effect) and thus explains what has been done
	Is independent	• Is independent both with regard to management/policy and with regard to the sector
Efficient	Collaborates	• Exchanges data, shares knowledge and invests in collaboration with other supervisors • Explores merging (reduces fragmentation, administrative pressure)
	Is transparent	• Discloses reports
	Is well organized	• Has a quality management system • Is of sufficient size and has sufficient resources
Professional	Has competent personnel	• Sets adequate intake requirements for new inspectors • Has a solid training program focused on specific knowledge and skills • Has a refresher training program

With this model, the research was conducted in the five cases and assessment lists for the document analysis and questionnaires for the interviews were structured.

The findings of the study in the five cases are described in **chapters 8 to 12**. Brzo oversight is part of the total organization of the services investigated, but is strongly oriented towards the statutory collaboration and the established collaboration in BRZO + with all associated working methods, procedures, methods, reports, etc. With regard to the criteria from the conceptual model, this means that a number of criteria such as measuring and promoting compliance levels, conducting risk analyzes, influencing the behavior of those placed under oversight, promoting self-motivation, measuring and evaluating effects, the promotion of good cooperation, the promotion of transparency, the promotion of specific knowledge and decisive action are mainly determined by the agreements in this BRZO +. That is why **chapter 7** has been added. This chapter provides a description of the structure, position and objective of the BRZO + as well as the joint implementation of the above criteria. This avoids having to repeat a number of descriptions in the texts about the cases each time.

The research findings and the explanatory analysis of these findings from the conceptual model are presented in **chapter 13**. It is found that 1) despite the considerable effort in the form of inspections, monitoring visits and the use of enforcement instruments, there is no good insight into the compliance levels achieved and the desired levels of compliance have never been formulated, that 2) in all reports drawn up by the joint inspectorates, which are sent to the Minister and presented by the Minister to the House of Representatives, only output data (numbers of companies, inspections, violations, enforcement processes, etc.) are presented and thus do not provide any insight into the outcome and the social effects that are achieved, that 3) there is no real risk management applied in Brzo oversight, that 4) in the Brzo oversight the (further) promotion of further pro-activity does not play a major role, that 5) the willingness to enforce and thus the decisiveness is growing, but that there are considerable differences between inspectors, regions and services, that 6) the different

services investigated use a different content in the concepts of signaling and setting the agenda, that 7) the public interest receives ample attention in all kinds of missions and visions, but is otherwise not really alive in the investigated services, that 8) there are considerable differences in the independent position of the collaborating services in the Brzo oversight and that the Brzo oversight is therefore not carried out independently of the (political) administration, that 9) the cooperation between the partners in the Brzo oversight is currently proceeding well, but that more far-reaching forms of cooperation through upscaling or merging (to achieve less fragmentation and coordination burden) experience little enthusiasm, that 10) the concept of transparency does not really occupy the mind of Brzo inspectors, that 11) the investigated services deal very differently with the safeguarding of internal working methods and processes, that 12) in the investigated services in general the human and financial resources are adequate in relation to the workload and that 13) Brzo oversight generally involves competent inspectors, because there is a great deal of attention for the acquisition of specialist knowledge and the necessary skills by means of the prior education requirements applied, the internal and external further education and training on the job, but less attention is paid to refreshing education and training.
In this chapter, the underlying causes and explanations for these observations are made explicit.

An analysis of the applicability of the conceptual model and of the research methods used and what value should be assigned to the results thereof, together with the validation of the descriptions of the cases, is described in **chapter 14**. In particular the structure of the model and the impact thereof have proved to be of great importance in the document analysis and the interviews. The connection of the aspects from the model to discussions that are current on oversight and enforcement also indicates the added value of the model. The documents of the services examined provided a great deal of information, which mainly provided a good insight into the basic principles, objectives and the ins and outs of the services as a whole. Extensive information about the implementation of Brzo oversight and the working methods and methods used was mainly obtained from the investigated documents of the BRZO + partnership. The image obtained from the document analyzes could be further supplemented or confirmed by the interviews. The findings were validated by submitting the various descriptions to all interviewees and asking them to comment on them.

Chapter 15 lists the conclusions of the study in 13 sub-conclusions. With this, the research sub-questions and the research question are answered in the following way:

Conclusion regarding research sub-question 1: The effectiveness of Brzo oversight cannot be determined, as there is no insight into its contribution to compliance by companies with legislation and regulations and the reports on the results only contain output data. Furthermore, there is no risk-based supervision and the decisiveness shows significant differences between services, regions and inspectors. There are major differences in the independent position between the participating services, which means that the independence of Brzo oversight is not guaranteed. Aspects such as putting the public interest first, identifying and setting the agenda and further promoting pro-activity play a subordinate role in Brzo oversight for various reasons.

Conclusion regarding research sub-question 2: There is good cooperation between the inspection partners of Brzo oversight. Partly because of this, the willingness to think about further upscaling in the inspectorates or mergers of services has fallen. Only the formal formation of six Brzo-VRs is obvious at this point. In general, there is an adequate staffing.

Guaranteeing the quality of actions is insufficient for the investigated services, with the exception of those at ISZW/MHC. An aspect such as transparency regarding the inspection results does not play a major role in Brzo oversight.
The efficiency of Brzo oversight can be positively appreciated with regard to the collaboration and staffing. On the other hand, the lack of assurance of the internal quality of actions is a cause for concern.

Conclusion regarding research sub-question 3: The Brzo inspectors generally are competent due to the prior education received, the internal and external further education and training on the job. Specialist knowledge and skills are available. However, maintaining this level by means of continuing refreshing education programs leaves something to be desired.

Conclusion regarding the research question: **The Brzo oversight is quantitatively good, but suboptimal with regard to quality. Due to a lack of insight into the contribution to actual compliance and reports using only output data, the effectiveness of oversight cannot be properly determined. In addition, there are significant differences in decisive action. This, together with the lack of independence, impairs effectiveness. Good cooperation and adequate staffing contribute to effective oversight efficiency. On the other hand, a lack of assurance of the quality of one's own actions harms efficiency. Brzo oversight is generally carried out by competent inspectors.**

Based on these conclusions and the answer to the research question, the recommendations have been formulated and presented in **Chapter 16**. The possible next steps are also indicated for each recommendation.