

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/46559674>

Towards a Better Understanding of Building Regulation

Article in *Environment and Planning B Planning and Design* · November 2009

DOI: 10.2139/ssrn.2204177 · Source: RePEc

CITATIONS

25

READS

2,954

2 authors, including:



Jeroen Van der Heijden

Victoria University of Wellington

133 PUBLICATIONS 1,691 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Voluntary Programs for Low-Carbon Building and City Transformations [View project](#)



Improving regulatory governance [View project](#)

TOWARDS A BETTER UNDERSTANDING OF BUILDING REGULATION

WORKING PAPER

Accepted for publication in:

Environment and Planning B, 36(6), 1038-1052

Author

Dr. Jeroen van der Heijden

Australian National University, Regulatory Institutions Network (RegNet)

University of Amsterdam, Amsterdam Law School

Professor Jitske de Jong

Delft University of Technology, OTB Research Institute

Contacts:

j.j.vanderheijden@anu.edu.au

www.jeroenvanderheijden.net

Abstract

This paper reviews a large body of regulatory literature and applies four major debates to the field of building regulation and control. We find that this field has attracted little attention of regulatory scholars, whilst fields such as the ‘natural’ or ‘occupational’ environment are often addressed in regulatory studies. We furthermore find that studies of building regulation and control often lack theoretical descriptions or applications. We argue that such application is necessary for a better understanding of building regulations and control.

Key words

Regulatory theory, regulatory regime, regulatory enforcement, local government reform, comparative policy analysis, building control

Towards a better understanding of building regulation

1 Introduction

In a paper by Rob Imrie, published in a recent issue of this journal, an architect expresses his feelings towards building regulation by sharing a thought: “I think a lot of our architectural life is actually dominated by regulations. I mean, you’re prescribed, almost as soon as you start building, by regulations of one sort or another.” (Imrie, 2007). Though not analysed by Imrie in that same paper, it might very well be that this type of feeling lives among other players in the building industry as well.

Present day building regulation in developed countries can trace its origins to nineteenth century urbanism when conditions such as poor housing conditions and unsanitary and unhealthy environments prompted governments to intervene in the building and construction trades. Since the nineteenth century, regulation has been adapted to suit contemporary needs and, worldwide, present day building regulation covers a broad range of topics, such as safety, public health, amenity and sustainability – see, for instance, present day building regulations in the United States (ICC, 2006), Australia (ABCB, 2004), Canada (NRCC, 2005) and different European countries (Sheridan et al., 2002). The implementation of building regulations and building control – referred to as “enforcement” in this paper – has also been subject to change. The contemporary trend is the introduction of private sector enforcement agencies to governmental enforcement regimes in countries such as Australia (ABCB, 1999), Canada (BCMh, 2007), New Zealand (Hunn, 2002; Yates, 2003) and parts of Europe (Meijer and Visscher, 2006; Meijer et al., 2003). It is expected that this private sector involvement in building regulatory regimes will only expand in future years (ibid).

It is therefore notable that building regulation appears a neglected subject in the studies of regulation; but also in studies from the field of urban planning and design. From a survey of a random sample of five leading magazines from journals in ‘the Construction and Building Technology category’ (Building Research International; Environment and Planning B; Structural Safety; the Journal of Safety Research; and the Journal of Construction Engineering and Management) we learned that out of roughly 2800 articles published between 1997 and 2007, only 15 dealt with the topic of building regulations, taking the discussion beyond that of case or ‘best-practice’ descriptions. Yet, even in these 15 papers almost no attention was given to the generalization of findings or theory-building.

A better understanding of building regulation might help to understand the outcomes of the changes that have been and will be introduced in building regulatory regimes worldwide. An evaluation and comparison of these regimes could provide valuable information to governments that face the challenge of changing their building regulatory regimes. The goal of this paper is to contribute to the understanding of building regulation by applying debates from regulatory literature to international examples of building regulatory regimes.

In the remainder of this paper we introduce four main debates in contemporary regulatory literature: the quality of law; enforcement strategies; enforcement styles; and enforcement actors. By applying these debates to different international examples and experiences we consider to what extent these bear out the ‘lessons’ that can be learned from regulatory literature. Finally we draw up a number of propositions in order to state expectations of changes in building regulatory regimes based on the literature reviewed. These propositions might be a point of departure for future research on building regulatory regimes.

2 The search for ‘optimal’ regulation

It is generally understood that rules and regulations are needed to guarantee both individual and public interests (cf. Supiot, 2007). Regulation can thus be understood as a guideline for the course of social action and interaction - to make it predictable (Burns and Flam, 1987: 55). In order to make regulation work however, it has to be enforced (e.g. Giddens, 1984, 18; Weber, 1964 [1921], 126-153). The whole of regulation and enforcement as a ‘means for achieving regulatory goals’ can be referred to as ‘regulatory regime’ (May, 2007, 9).

Regulation and enforcement has been a topic of many regulatory studies and many theories have been drawn up (for an extensive overview, see Baldwin and Cave, 1999). This search for ‘optimal’ regulation might help to gain a better understanding of changes in the field of building regulation. It would be far beyond the scope of this paper to provide a complete overview of these studies and theories; we will therefore focus on introducing four major debates in regulatory literature as these seem to us most valuable for gaining a better understanding of building regulation.

2.1 Quality of rules

A question arising from debates on the quality of rules is whether rules will lead to compliance (e.g. Bardach and Kagan, 1982; Griffiths, 2003). Characteristics analysed are adequacy, feasibility, legal certainty and adaptability (van Rooij, 2006: 32-43). As the reader will notice, these characteristics overlap with the discussions introduced in sections 2.3, 2.4 and 2.5 of this paper.

Adequacy signifies the extent to which the formal goals of regulations are fulfilled when these are being complied with (Hoogerwerf and Herweijer, 2003). Adequacy furthermore signifies that sanctions of regulations should be compelling (van Rooij, 2006: 33). Compliance is generally considered to come from the regulatee’s fear of the consequences of non-compliance; the regulatee’s insight that compliance serves the personal interest; and the regulatee’s insight that regulations are legitimate and therefore have to be complied with (Burgstaller, 2005, see also, Kagan and Scholtz, 1984).

Feasibility signifies the regulatee’s ability to comply with the regulations (Scholz, 1984: 391-392). The regulatee’s ability to comply might be limited due to a physical or economic inability to do so, or due to non-familiarity with the regulations (Greer and Downey, 1981; Prinsen and Vossen, 2003). Also the regulatee’s willingness to comply with regulations seems an important aspect (Erp, 2005; May, 2004). Regulatees are sometimes regarded as calculating actors who react or respond to regulations based on issues such as the chance of getting caught when breaking rules, or the chance of being disciplined if caught (LEEC, 2004; Prinsen and Vossen, 2003; Scholz, 1984). Feasibility also signifies that regulations can be enforced (van Rooij, 2006: 37). Enforcement agencies have a limited capacity and therefore not all action can be supervised. Furthermore, some rule breaking is easier to detect than others (Gunningham and Grabosky, 1998; Kagan, 1994), particularly in the case of building regulation, this appears to be a relevant issue as controlling building regulations often demands specific technical knowledge or the right timing for inspections as much construction work is ‘covered up’ behind walls, ceilings and floors.

Certainty signifies there is little misunderstanding of what the regulations mean and how they are enforced (Bardach and Kagan, 1982: chapter 3; Scholz, 1984: 386-387; van Rooij, 2006: 38-

39), in the light of performance-based building codes, again a relevant issue in building regulation. To increase competition and support innovation, many countries around the world have moved from prescriptive building regulations towards performance-based building codes (Meacham et al., 2005). The traditional prescriptive regulations prescribe how regulations must be complied with. A typical feature of performance-based building regulations is:

‘the explicit statement of goals and objectives that reflect societal expectations and desires, along with functional statements, operative requirements and in some cases performance criteria, which are to be used to demonstrate that goals and objectives have been met’ (Meacham et al., 2005: 92).

The regulatory focus is no longer on how compliance is reached, but *that* compliance is reached. The danger in this type of regulation might be found in its highly complex nature (Spence, 2004: 401) and a missing link between regulation and methods to test compliance and the overall accountability of the system (Meacham et al., 2005). These findings seem to be underpinned by a comparative study on building safety in New Zealand and fire safety in the US (May, 2007). From this study, it was found that evaluation criteria to assess performance were missing; government agencies responsible for compliance assessment were lacking expertise to carry out enforcement; and accountability of the systems were questioned due to issues in professional judgement and the exercise of professional judgement.

Adaptability, finally, signifies the regulations’ ability to be adjusted to specific actual and future circumstances (van Rooij, 2006: 40). It is argued that more open regulations give the regulatee the freedom to find a cost-efficient way of complying with regulations (Bardach and Kagan, 1982). In terms of performance-based building regulations, this has been one of the reasons for introducing this type of regulation in many countries (Meacham et al., 2005). Adaptation also signifies the regulators’ ability to adjust enforcement to specific circumstances (van Rooij, 2006: 42). This issue will be dealt with more extensively in sections 2.3 and 2.4.

2.3 Enforcement strategy

The term *enforcement strategy* is often used to describe tactical choices made by enforcement agencies and the type of actions these agencies take (e.g. Bardach and Kagan, 1982; Hawkins, 1984; Kagan, 1994; May and Burby, 1998). Tactical choices mostly refer to issues such as allocating resources, setting targets and monitoring outcomes (e.g. Mueller, 2003: chapter 16). Types of action mostly refer to issues such as sanctions and incentives (e.g. Kagan, 1994).

Tactical choices

Setting targets and monitoring policy outcomes is often regarded as a difficult task in daily practice. Goals underlying regulations often appear to be ‘plural, conflicting or vague’ (Herweijer, 1987: 181), or are not stated officially at all (e.g. Dunn, 2003: 135-137). Outcomes are often impossible to measure. For building regulation, a policy goal might be structural safety and the prevention of fatal construction-related incidents. Measuring these incidents is, of course, impossible when incidents do not occur. Much policy does not supply a number of units of output, or targets; and therefore

efficiency of the agency implementing that policy is difficult, if not impossible, to monitor (Mueller, 2003: chapter 16).

Types of action

Sometimes, division is made between deterrence-based strategies and compliance-based strategies (e.g. Hawkins, 1984; Scholz, 1984). The deterrence-based strategy aims at deterring non-compliance prior to the law being broken (Reiss, 1984) or aims at sanctioning non-compliance after the law has been broken (Hawkins, 1984); the consequences of non-compliance have to be feared (e.g. Ogus, 2002). A central hypothesis within this strategy forms the notion that the higher the chance of getting caught breaking the law and/or the higher the sanctions if the law is broken, the less willing people are to break it (Coolsmas and Wiering, 1999). Critics of this strategy state that it is ineffective and expensive, it brings about problems with enforcement and it aims too much at end-of-pipe solutions (e.g. Fairman and Yapp, 2005: 493) The system is also said to be prone to regulatory capture (Baldwin and Cave, 1999: 36-37).

The compliance-based strategy aims at the spontaneous obedience of regulations (Hawkins, 1984; Kagan, 1994) and aspires to maximum effectiveness of public means and activities by encouraging those features that bring about spontaneous obedience and weakening those features that bring about non-compliance (Parker, 2000). Spontaneous obedience is considered to proceed from feelings of moral disapproval about breaking the law (Tyler, 1990).

Instead of using negative incentives, such as fines and penalties, compliance can also be reached through positive incentives. According to this positive incentive approach, compliance can be influenced by deploying grants or subsidies (Baldwin and Cave, 1999: 41-42). The advantages of this strategy are said to be a low risk of capture; regulatees have a choice between the costs of non-compliance and the benefits of compliance; regulatees are stimulated to reduce harassment as much as possible, down to zero if possible, instead of to a prescribed level. Nevertheless, the model is also said to have disadvantages: regulations based on incentives are often very complex; incentive regimes work indirectly and might therefore react too late; it is difficult to measure the actual effect of the incentive; and public concern may arise as to why some harmful action is nevertheless being accepted.

A special variety of incentive-based regime is the link between insurance premiums to performance records; so-called insurance-based incentives (Baldwin and Cave, 1999: 53-55). In this model, insurance can be obtained if compliance with regulations is proved. This model is said to have the same advantages and disadvantages as the incentive-based regime, yet, Baldwin and Cave stress the question of whether a choice has to be made for public or private actors providing insurance. Private sector regulators might discriminate between the insured, which could mean certain policy goals are not secured. This variety is sometimes considered to have considerable potential in building regulatory enforcement; especially as insurances can be used in various ways (Comerio, 2004: 411; Spence, 2004: 401). For instance, compliance with regulations might be a precondition to obtaining an insurance policy, or the proof of holding an insurance policy is made a condition for obtaining a building permit – a situation that exists in France (Meijer et al., 2003).

Mixing strategies

Under a traditional regime, the government sets regulations and enforces these. The most traditional structure is a command-and-control regime based on negative incentives (e.g. Kagan, 1984). This regime has, however, been subject to much criticism as it is considered to be liable to capture and it is likely to result in over-regulation. Compliance standards furthermore are difficult to set and difficult to enforce (Baldwin and Cave, 1999: 36-39). Critics of this regime therefore promote alternative regimes in which different strategies are used; preferably a mix of strategies (e.g. Hawkins, 1984; Hawkins and Thomas, 1984; Parker, 2000; Reiss, 1984; Shapiro and Rabinowitz, 2000; Tyler, 1990).

A ground-breaking move away from the traditional command-and-control regime can be found in Ayres and Braithwaite's model of responsive regulation. Ayres and Braithwaite (1992) state that rejecting punitive regulation is naïve, however, total commitment to it might lead to unnecessary employment of means. Based upon prior empirical research in pharmaceutical companies, coal mining companies by Braithwaite (1984; 1985) and Australian business regulatory agencies by Grabosky and Braithwaite (1986) the authors of the responsive regulation model state that a strategy based upon punishment as first choice is unaffordable, unworkable and counterproductive (Ayres and Braithwaite, 1992: 26). Instead of aiming at compliance through deterrence-based strategies, the authors promote the use of different, less punitive and less restrictive, strategies and preferably mix different strategies: 'the trick of successful regulation is to establish a synergy between punishment and persuasion' (ibid: 25). Responsive regulation differs from the traditional command-and-control regime in what triggers a regulatory response and what this response will be (ibid: 4). The relationship between controller and subject and the controller's ability to choose between different sanctions is regarded as the strength of this model. (Ayres and Braithwaite, 1992; Braithwaite, 2002).

Concentrating on risks

From the 1980s onwards, risk reduction is given a more and more important role in discussions on regulation and a shift towards so-called risk-based regulation can be perceived (Hood et al., 2001; Hutter, 2005). The emergence of this enforcement strategy has been addressed in a number of studies (e.g. Baldwin and Cave, 1999; Baldwin et al., 2000; Braithwaite, 2000; Sparrow, 2000). Risk is often defined as 'the probability that a particular adverse event will occur during a given period of time, or result from a particular challenge' (Baldwin and Cave, 1999: 138). Risk-based regulation aims at setting standards, collecting information, influencing and changing behaviour (Hood et al., 2001), and aiming enforcement resources at those subjects that create greatest risk (Baldwin, 2006). Risk-based regulation differs from traditional regulation, because it is not based upon the input of an activity – prescribing what to do, or which standards to meet – but based upon its output – the risk it causes. Another difference between traditional regulation is its non-deterministic character: traditional regulation aims at reducing non-compliance to zero, whereas risk-based regulation accepts that risks do exist and that some risks are inevitable, but tries to reduce these risks to a minimum (Seiler, 2002).

Risk-based regulation is said to have both advantages and disadvantages. It is often perceived as more effective and efficient, as priority is given to certain enforcement activities; and as more legitimate, as certain choices are more analytically-based (Hutter, 2005). Nevertheless, these choices

are particularly viewed as the down-side of risk-based regulation, as it is impossible to determine a risk objectively (Baldwin and Cave, 1999: 142; Baldwin et al., 2000; Hutter, 2005). In addition, the analytical approach of defining risks, by combining chance and effect, may therefore give a false sense of security (Rothstein et al., 2006). Furthermore, a false sense of security may arise when the system is 'too literally and slavishly believed in' (Hutter, 2005: 13) and, once risks are determined, the system might be blind to new risks (Baldwin, 2006). Finally, it is questionable if risk-based regulation has to be experienced as an (other) enforcement strategy or 'a methodical tool into which political judgments may be explicitly incorporated' (Flüeler and Seiler, 2003: 228).

2.4 Enforcement style

The term *enforcement style* is often used to characterise an inspector's behaviour towards a regulatee (e.g. Bardach and Kagan, 1982: 72; Hutter, 1997). In regulatory literature, a wide variety of possible enforcement styles are described. Based on the responsive regulation philosophy (Ayres and Braithwaite, 1992), these styles seem to fit on a sliding scale that is defined by a consulting, facilitative approach at one end and a rigid, legalistic approach at the other end. A wide-ranging mix of enforcement styles that fit on this scale has been described by different authors (for an overview, see May and Wood, 2003).

Authors appear to have different opinions regarding the actual effect of an inspector's enforcement style on the compliance behaviour of the regulatee (e.g. May and Wood, 2003; Nielsen, 2006). From research by May (2004) on compliance with building regulations by building contractors in the US home building industry, it is concluded that negative compliance motivations are influenced by inspection practices, whereas affirmative motivations are mostly influenced by attitudes and beliefs of law-subjects and by their knowledge of the rules. For example, a facilitative style fostered affirmative motivations while detracting from negative motivations and a formalistic style detracted from affirmative motivations – no evidence was found for the influence of a formalistic style on negative motivations. Important conclusions drawn from this research are the insight (and empirical proof) that different motivations can be addressed to get compliance; that the role of the inspector does influence compliance motivations; and that compliance motivations are also being influenced by the possible loss of reputation among peers.

These first two conclusions appear partly to underpin the strength of the responsive regulation model. However, from the research in the US home building industry, it was found (May and Wood, 2003: 135) that 'homebuilders learn to roll with the punches and do little to adjust their compliance behaviour when faced with different enforcement styles.' Furthermore, from empirical research in the agricultural sector (May and Winter, 2000; Winter and May, 2001), it is learned that fair and regular controls offer more perspective than varying enforcement styles, thus backing some of the strengths that Ayres and Braithwaite ascribe to their model of responsive regulation. We also learn that sanctioning has a turning-point, after which counter-productive effects are gained: more sanctioning will encounter resistance. This said, an overly informal relationship between controller and subject could bring about negative results when the possibility to sanction is not being used (ibid).

A study by Imrie (2004) amongst building regulatory inspection officers in the United Kingdom gives notable insight into these officers' daily practices. According to Imrie (ibid: 431), inspection officers use harsh enforcement means and penalties as a last resort. This is due to a competitive regime under which contractors can decide to use another building control department

or even private sector agencies to carry out the control function. The possibility of losing a client appears to be a strong restriction on the building control department's freedom of choosing a style.

2.5 Enforcement actors

What has not been addressed yet is the agency's or inspector's background. Implicit enforcement has been ascribed as a task for public agencies and public inspectors. However, in daily practice, many examples of private sector involvement in regulatory enforcement regimes can be found – building regulatory enforcement included, as already illustrated in the introduction of this paper. Important differences can be found between private agencies and public agencies (Wilson, 1989: 169). A first is that private agencies must survive by attracting clients and contributors – note that a public agency sometimes 'must cope with a clientele not of their own choosing' (ibid). A second is that private agencies face fewer constraints in using or disposing of capital and labour than public agencies (ibid: chapter 7). Bearing in mind these kinds of differences, it could be argued that the public and private agents and agencies have different strengths and weaknesses, which might make them more or less suitable for carrying out certain building regulatory enforcement tasks. This brings us to the fourth and final discussion in regulatory literature that we would like to introduce: enforcement actors.

The term *enforcement actor* is used to indicate the agents and agencies that carry out the actual enforcement tasks. An influential work in which the idea of enforcement actors is addressed was published in 1998 by Gunningham and Grabosky: *Smart Regulation*. In their work, Gunningham and Grabosky divide the regulatory process into parties, roles and interactions (Gunningham and Grabosky, 1998: chapter 3). The focus on the possibility of different parties in the process has, in particular, been a move away from the traditional idea on regulatory regimes that, according to Gunningham and Grabosky, considered the regulatory process to be too much of 'a dance between two participants – government and business' (ibid: 93).

The key to the smart regulation philosophy is to have those actors involved in the regulatory process that are best suited to enforce regulations. Sometimes this may be through traditional public agencies; sometimes through self-regulatory or co-regulatory initiatives in which private sector actors enforce their own body; sometimes through third parties, such as consumer interest groups that act as 'surrogate controllers'. However, from extensive empirical research (ibid: 137-372), it is established that involving 'surrogate controllers' is more efficient when large companies are involved and when non-compliance is easy to notice in these participants and parties. For instance, for an ordinary citizen it might be easy to notice violation of planning regulations when a building is built where it is not supposed to; yet, violation of technical building regulations when the wrong type of glazing is used might be hard or even impossible to notice as that same citizen does not have the necessary technical knowledge or experience to do so. Griffiths' 'theory of the social working of legal rules' underpins the idea that compliance with regulations not only comes from professional bodies enforcing regulations, but that other actors have a strong influence on compliance motivation as well (Griffiths, 2003).

Private sector involvement in regulatory regimes: self regulation

The notions of 'substitute controllers' and self-regulatory or co-regulatory initiatives in the regulatory process are not unique as such. Ayres and Braithwaite (1992) and Braithwaite (1982, 1984, 1985) already noticed 'public enforcement of privately written rules' and 'publicly mandated and publicly

monitored private enforcement of those rules' (Ayres and Braithwaite, 1992: 116). Based on these insights, Ayres and Braithwaite introduce the concept of 'enforced self-regulation' (Ayres and Braithwaite, 1992: chapter 4; Braithwaite, 1982). Within this model, a government body is overseeing the process of self-control; and government and individual companies make agreements on compliance. These individual companies have to determine if regulations are being complied with and have to set up protocols to deal with the non-compliance.

In regulatory literature, self-regulation is often believed to be the opposite to traditional command and control regimes and the two are frequently regarded as the limits of a continuum or sliding scale of regulatory regimes (Price and Verhulst, 2000; Sinclair, 1997). Self-regulation is said to have both advantages and disadvantages (cf. Ayres and Braithwaite, 1992: chapter 4; Baldwin and Cave, 1999: 124-133; Fairman and Yapp, 2005; Griffiths, 2003: 57; Gunningham and Grabosky, 1998: 52-56). Relevant expertise and knowledge of the 'own' body, and specialist technical expertise are seen as major advantages of self-regulation. It is believed that a self-regulatory organisation knows more about its sector than a public authority ever could. Furthermore, self-regulators are considered to have more easy access to those under control and can get the information they need at a lower cost. Finally, organisations are considered to show a high level of acceptance as they are subject to 'their own' rules.

Conversely, mandate claims are seen as problematic; the introduction of individuals or organisations that have no democratic legitimacy with which to exercise enforcement makes it hard to justify that the public interest is being served. Also, the accountability of self-regulators seems to be questionable: the risk of capture might weaken the model, as do both the potential lack of public belief in the scheme and the possible exclusion of organisations that are not part of the self-regulatory system. Finally, the economic circumstances that might stimulate companies to implement self-regulation and the knowledge and willingness within an organisation to implement self-regulation might be lacking. Nevertheless, in terms of management and efficiency, different authors claim that self-regulation, or a certain type of self-regulation, and formal legal systems work best when they are combined (for an overview, see Doyle, 1997: 35-42).

The concept of self-regulation is, however, comprehensive, and an unambiguous definition seems difficult to make. Self-regulation can, in a broad sense, be considered to be taking place when a group of firms or individuals exercise control over its own membership and their behaviour (Baldwin and Cave, 1999: 125), but often with a certain amount of government concern (Gunningham and Rees, 1997: 365). But then: what is the amount of control needed to call it self-regulation? This question seems to have been an ongoing debate in regulation literature for some time now, with a number of authors participating (e.g. Husye and Parmentier, 1990; Price and Verhulst, 2005; Price and Verhulst, 2000; Rees, 1988; van den Heuvel, 1994). Most authors draw up a number of sub-models or types of self-regulation based on a certain degree of private sector involvement in enforcing public regulations. However, the range of this 'certain degree' is a broad one as it starts straight where command-and-control ends and continues to the point of no external governmental involvement at all – a continuum. The different in-between models or types do not all cover the same range of private sector involvement, have varying definitions and are sometimes given the same, or similar names when having dissimilar characterizations. Due to this lack of cohesion in self-regulatory literature, it seems difficult to compare the sub-models or types. In figure 1 this lack of cohesion is illustrated by placing some authors' typologies on a continuum.

Figure 1 – a continuum of regulatory regimes

Author(s)	Regulatory regime			
	C and C	Self-regulation (SR)		Voluntarism
	Government involvement only	More government than non-government involvement		No government involvement
		More non-government than government involvement		
▪ Rees (1988)			mandatory partial SR	voluntary or total SR
▪ Huyse et. al. (1990)		incorporating	concerted action	
▪ Heuvel (1994)			sub-contracting	pure SR
▪ Price et. al. (2005)		covenants or contracting	conditioned SR	voluntary SR
		mandated SR	sanctioned SR	
				coerced SR

Nonetheless, when taking a look at key-features, it seems possible to split up the mentioned continuum in a rough categorization: sub-models or types that are characterized by more government involvement than non-government involvement and sub-models or types that are characterized by non-government involvement that government involvement. It might well be possible to come to a more sophisticated division of sub-categories, yet, that would be beyond the scope of this paper. It is presupposed that the advantages and disadvantages mentioned have the strongest impact on the second category mentioned.

3 Three examples: changes in regulatory regimes in New Zealand, Canada and the Netherlands

As stated in the introduction, world wide building regulatory regimes are subject to change due to, for example, the introduction of private sector involvement. In this section I briefly discuss and consider three examples of building regulatory regimes in which a move away from the traditional command and control regime has been made or will be made shortly towards self-regulation. We use terminology and concepts discussed in the previous section.

3.1 A combination of issues in New Zealand

A study on the building assessment system in New Zealand shows a worst case-scenario, which Peter May addresses as ‘The Saga of the Leaky Buildings’ (2003). In a relatively short period of time, the New Zealand government made two major changes in building regulation. The first was a change in the actual building regulations from prescriptive to performance-based regulation, the Building Act of 1991. The second was the introduction of (competitive) private sector building controls. The Act provided broad objectives and details for verifying compliance, but it did not specify requirements for on-site construction assessment (May, 2003: 392). The building regulatory reforms in New Zealand embraced ‘the faith in the market and limited government intervention’ (ibid). At the same time, the development market changed: there was a strong increase in the demand for domestic building and consumers started to prefer so-called “Mediterranean style” homes characterised by plaster and adobe finishes (ibid: 392-393). The competitive marketplace responded by shifting from

commercial to domestic development and started building with cost-efficient and low-maintenance building materials. In the wet climate of New Zealand, the combination of regulatory changes and changes in the development market led to problems with the weathertightness of buildings (ibid: 393): moisture crept through the cladding of the newly built buildings into the structure resulting in ‘cracking and eventually the partial or total collapse of the building.’ It is suggested that up to 18,000 homes and numerous multi-unit buildings have been affected in this “Leaky Building Crisis”.

Two major inquiry reports (Hunn, 2002; Yates, 2003) state that a combination of issues – amongst which, a lack of performance criteria; a lack of standards that could serve as acceptable solutions; differences in building plan approval between jurisdictions; local public authorities carrying out a harsher enforcement style than private sector agencies; the freedom of developers to choose between jurisdictions and enforcement agencies – led to a ‘race to the bottom in building approval standards’ (May, 2003: 395).

3.2 Positive experiences in Canada

In the City of Vancouver a regime has been introduced under which architects and engineers can be allowed to assess building plans and buildings under construction (CCP, 2003). In order to do so architects and engineers have to be certified by the City. The City runs the certification scheme, provides training and sets exams. Passing the exam, partaking in continuous professional development, and holding a personal indemnity insurance policy is required to obtain certification. Once certified architects and engineers are only allowed to carry out statutory building assessment of complex building works. The City maintains involvement in all projects that are subject to this variance of private sector assessment through communication with and supervision of the private agents involved. The City maintains responsibility for issuing building and occupancy permits.

In order to make private sector involvement attractive to permit applicants the City offers a 40% permit fee refund if an applicant chooses private sector involvement. The City furthermore will issue a building permit within a week after receipt of the private agent’s statement of a project’s compliance; permit issuance might take up to 12 weeks if statutory building assessment is carried out by a City’s building official.

The private sector agent can be considered an intermediary between the design-team and the City. The regime is valued positively (BCMH, 2007). Currently roughly 90% of all complex construction work is being assessed by private sector agents. The City does not have to maintain a large and specialized staff; peaks in permit applications can be levelled out; assessment of minor construction work can still be carried out as under the old regime; and, due to private sector involvement, the City reduces its liability exposure as the more complex – the more risky – buildings are being assessed by other actors. Some municipalities have already introduced or are considering the introduction of a comparable regime (ibid).

3.3 Future developments in the Netherlands

When looking at the formal Dutch building regulations and building control many characteristics of a strict command-and-control regime can be detected (van der Heijden et al., 2006): building regulations are compulsory imposed by the Dutch national government, all subjects and cases should be treated equally, enforcement of building regulations is largely being executed by governmental agencies and non-compliance will be sanctioned. Formal enforcement of building regulations seems

to aim at compliance through means of fear of sanctioning by imprisonment or penalties – negative incentives. However, when looking at the actual execution of building control (van der Heijden et al., 2007) divergence from this strict command-and-control regime can be perceived. In daily practice local building control authority employees seem to choose a persuasive and instructive attitude in order to gain compliance with regulations.

Recently, changes have been introduced in the Dutch building regulatory regime (van der Heijden, 2007): with the introduction of certified private building control surveyors a move into the field of self-regulation has been made. Yet, as the national government maintains a strong role in both the design and implementation of building regulations and the enforcement of regulation, it can be argued that the type of self-regulation chosen is but a careful move into the area of ‘more government than non-government involvement’. Only the allocation of enforcement officers seems to get changed by regulating (entry) requirements for private building control surveyors – no change seems to be made with respect to the content of actual enforcement.

Another change in the Dutch building regulatory regime is an initiative by the Netherlands Association of Building Inspectorates to introduce a risk-based inspection protocol (ibid). Projects that are expected to form a high risk will be subject to strict enforcement; projects that are expected to form a lesser or no risk, for instance minor construction work such a small alterations to houses – approximately 80% of all permits applied for – will be subject to little enforcement or an administrative procedure only. Yet, no further movement from the strict command-and-control system is expected as the risk-based instrument will not change the system of daily practice. Only the process will change. Through acceptance of the instrument national government appears to formalize and justify the present informal practice at a municipal level.

4 Conclusions

A large body of regulatory literature has been discussed in this paper; and, concepts and terminology discussed has been applied to three international cases of building regulations and building regulatory enforcement. Based on the discussion, a number of propositions can be drawn up with regards to changes in building regulatory regimes. These propositions might be a point of departure for future research on such building regulatory regimes.

Based on the notions of the quality of law it might be expected that performance-based building regulations on the one hand enhance adaptability of the regulations, but on the other have a negative impact on the certainty of regulations: it might become unclear to enforcers, but also to regulatees subject to regulations, to evaluate or indicate compliance with regulations. The New Zealand and US cases discussed once more underline the need for evaluation criteria to assess performance requirements. Too much freedom due to too loose performance criteria might undermine the goal of building regulations: guaranteeing both individual and public interests.

From the notions of enforcement strategies it became clear that full compliance with building regulations is difficult to measure. This indicates that building regulatory regimes hold an implicit risk: uncertainty of compliance. Based on the notions on enforcement strategies it might be expected that enforcement based on positive incentives has a more positive influence on a regulatee’s willingness to comply than enforcement based on negative incentives. Incentives such a permit fee reduction as in the Canadian case might very well persuade building permit applicants to involve specialized actors in the application process. Mixing strategies and responding to actual

circumstances instead of strictly following protocols appears the most ideal enforcement strategy for the enforcement of work under construction. By using risk based strategies for making decisions on enforcement measures it is expected that limited resources can be implemented to result in maximum outcomes: ‘the biggest bang for the regulatory buck’ regulatory scholars would say (e.g. Gunningham, 2002: 5; Sparrow, 2000: 34).

Based on the notions of enforcement styles it might be expected that a facilitative enforcement style has a more positive influence on a regulatee’s willingness to comply than a formalistic style: for example in the US and Dutch cases discussed, inspectors experience that ‘consulting’ is more likely to result in compliance than ‘policing’. A too formalistic style was however found to result in negative effects and from the notions on responsive regulation it seems that inspectors should have a ‘stick’ at hand – and use it – when needed. The strength of harsh sanctions, even when these are not imposed, should not be underestimated: ‘Paradoxically, the bigger and the more various the sticks, the greater the success regulators will achieve by speaking softly’ (Ayres and Braithwaite, 1992: 19).

Based on notions of enforcement actors it might be expected that a mix of public and private sector inspectors, as for example in the Canadian case, will result in the most optimal building regulatory regime. Issues were found when only public or only private sector involvement was implemented. Note that competition for clientele between the public and the private sector, as illustrated in the UK and New Zealand cases, appears to result in issues with enforcement as the loss of clientele might be a negative incentive to the inspection agencies involved. The strength of the Canadian case appears to be the complementary relationship between the City of Vancouver and the private sector inspectors involved.

A last concluding proposition: changing a building regulatory regime implies making tradeoffs. For example, prescriptive regulation might be easier to enforce than performance-based regulation as compliance criteria are clear, it will not stimulate permit applicants to come up with innovative solutions. Then, command and control enforcement might give authorities a theoretical possibility of total enforcement, it is however costly and time consuming for both enforcer and regulatee. Finally, competition between the public and private sector might result in a relatively cheap enforcement procedure for permit applicants involved, at question is: at what social costs?

A better understanding of building regulation might give insight in these tradeoffs and might help in the search for ‘optimal’ building regulation. Current literature in the field of building regulation seems however to be lacking unambiguous definitions and typology, thereby making comparative research of building regulatory regimes difficult, if not impossible. If we want to gain a better understanding of changes in the field of building regulation and move beyond best practice descriptions it seems we have to look outside the borders of ‘the construction and building technology category’. Not only to learn from research in other fields of public policy, but also to show others the value and importance of research in the field of building regulation.

Acknowledgements. The authors wish to thank Johan den Hertog, Kutsal Yesilkagit, Neil Gunningham and Peter May for advice on regulatory literature. The comments of André Thomsen and four referees were invaluable in helping us to reshape the paper.

References

- ABCB, 1999 *Draft National Accreditation Framework for Building Certification, discussion paper* (ABCB, Canberra)
- ABCB, 2004 *BCA 2004* (ABCB, Canberra)
- Ayres I, Braithwaite J, 1992 *Responsive Regulation. Transcending the Deregulation Debate* (Oxford University Press, New York)
- Baldwin R, 2006, "Better regulation in troubled times" *Health Economics, Policy and Law* **1** 203-207
- Baldwin R, Cave M, 1999 *Understanding Regulation. Theory, Strategy and Practice* (Oxford University Press, New York)
- Baldwin R, Hutter B, Rothstein H, 2000, "Risk regulation, Management and Compliance", (LSE, London) pp 1-69
- Bardach E, Kagan R A, 1982 *Going by the book: the problem of regulatory unreasonableness* (Temple University Press, Philadelphia)
- BCMh, 2007 *Testing the proposed state. Information booklet* (BC Ministry of Housing, Vancouver)
- Braithwaite J, 1982, "Enforced Self-Regulation: A New Strategy for Corporate Crime Control" *Michigan Law Review* **80** 1466-1507
- Braithwaite J, 1984 *Corporate crime in the pharmaceutical industry* (Routledge & Kegan Paul, Boston)
- Braithwaite J, 1985 *To punish or persuade enforcement of coal mine safety* (State University of New York Press, Albany)
- Braithwaite J, 2000, "The New Regulatory State and the Transformation of Criminology" *British Journal of Criminology* **40** 222-238
- Braithwaite J, 2002 *Restorative justice & responsive regulation* (Oxford University Press, Oxford)
- Burgstaller M, 2005 *Theories of compliance with international law* (M. Nijhoff, Leiden)
- Burns T R, Flam H, 1987 *The shaping of social organization social rule system theory with applications* (Sage, London)
- CCP, 2003 *Certified Professional Program - Vancouver Insert* (CPP, Vancouver)
- Comerio M, 2004, "Public policy for reducing earthquake risks: a US perspective" *Building Research & Information* **32** 403-413
- Coolsma C, Wiering M, 1999 *Handhaving in stukken beschouwingen over theorie en praktijk van de handhaving van recht* (SISWO, Amsterdam)
- Doyle C, 1997, "Self Regulation and Statutory Regulation" *Business strategy review.* **8** 35-42
- Dunn W N, 2003 *Public policy analysis an introduction* (Prentice Hall, Harlow)
- Erp J v, 2005, "Motieven voor naleving van regelgeving ", in *Recht realiseren*. Eds T Barkhuysen, W d Ouden (Kluwer, Deventer) pp 15-27
- Fairman R, Yapp C, 2005, "Enforced Self-Regulation, Prescription, and Conceptions of Compliance within Small Businesses: The Impact of Enforcement" *Law and Policy* **27** 491-519
- Flüeler T, Seiler H, 2003, "Risk-based regulation of technical risks: lessons learnt from case studies in Switzerland" *Journal of Risk Research* **6** 213-231
- Giddens A, 1984 *The constitution of society outline of the theory of structuration* (University of California Press, Berkeley)
- Grabosky P N, Braithwaite J, 1986 *Of manners gentle enforcement strategies of Australian business regulatory agencies* (Oxford University Press, New York)
- Greer C R, Downey H K, 1981 *Industrial compliance with social legislation investigations of decision rationales* (Oklahoma State University, Stillwater)

- Griffiths J, 2003, "The Social Working of Legal Rules" *Journal of legal pluralism and unofficial law*. **48** 1-72
- Gunningham N, 2002, "Regulating Small and Medium Sized Enterprises" *Journal of Environmental Law* **14** 3-32
- Gunningham N, Grabosky P, 1998 *Smart Regulation. Designing Environmental Policy* (Oxford University Press, Oxford)
- Gunningham N, Rees J, 1997, "Industry Self-Regulation: An Institutional Perspective" *Law & Policy* **19** 363
- Hawkins K, 1984 *Environment and enforcement regulation and the social definition of pollution* (Clarendon Press, New York)
- Hawkins K, Thomas J M, 1984 *Enforcing regulation* (Kluwer-Nijhoff Boston)
- Herweijer M, 1987, "De dynamiek van doestellend gedrag", in *Handboek beleidswetenschap* Eds P B Lehnig, J B D Simonis (Boom, Meppel) pp 177-195
- Hood C, Rothstein H, Baldwin R, 2001 *The government of risk. Understanding risk regulation regimes* (Oxford University Press, Oxford)
- Hoogerwerf A, Herweijer M, 2003 *Overheidsbeleid een inleiding in de beleidswetenschap* (Kluwer, Alphen aan den Rijn)
- Hunn D, 2002 *Report of the overview group on the weatertightness of buildings to the building industry authority*. (Building Industry Authority, Wellington)
- Husye L, Parmentier S, 1990, "Decoding codes: The dialogue between consumers and suppliers through codes of conduct in the European Community" *Journal of Consumer Policy* **13** 253-272
- Hutter B, 2005 *The Attractions of Risk-based Regulation: accounting for the emergence of risk ideas in regulation. Discussion paper no. 33* (ESRC, London)
- Hutter B M, 1997 *Compliance regulation and environment* (Clarendon Press, New York)
- ICC, 2006 *2006 International Building Code*. (Thomson Delmar Learning, New York)
- Imrie R, 2004, "The role of the building regulations in achieving housing quality" *Environment and planning B, Planning & Design* **31** 419-437
- Imrie R, 2007, "The interrelationships between building regulations and architects' practices" *Environment and planning B, Planning & Design* **34** 925-943
- Kagan R A, 1984, "On regulatory inspectorates and police", in *Enforcing regulation* Eds K Hawkins, J M Thomas (Kluwer-Nijhoff, Boston)
- Kagan R A, 1994, "Regulatory Enforcement", in *Handbook of regulation and administrative law* Eds D H Rosenbloom, R D Schwartz (M. Dekker, New York) pp 383-422
- LEEC, 2004 *The 'Table of Eleven'; a versatile tool* (Dutch Ministry of Justice, The Hague)
- May P, Burby R, 1998, "Making Sense Out of Regulatory Enforcement" *Law & Policy* **20** 157-182
- May P J, 2003, "Performance-Based Regulation and Regulatory Regimes: The Saga of Leaky Buildings" *Law & Policy* **25** 381-401
- May P J, 2004, "Compliance Motivations: Affirmative and Negative Bases" *Law & Society Review* **38** 41-68
- May P J, 2007, "Regulatory regimes and accountability" *Regulation & Governance* **1** 8-26
- May P J, Winter S C, 2000, "Regulatory enforcement and compliance: Examining Danish agro-environmental policy" *Journal of Planning Literature* **14** 625-651
- May P J, Wood R S, 2003, "At the Regulatory Front Lines: Inspectors' Enforcement Styles and Regulatory Compliance" *Journal of Public Administration Research and Theory* **13** 117-139

- Meacham B, Bowen R, Traw J, Moore A, 2005, "Performance-based building regulation: current situation and future needs" *Building Research & Information* **33** 91-106
- Meijer F, Visscher H, 2006, "Deregulation and privatisation of European building-control systems?" *Environment and planning B, Planning & Design* **33** 491-501
- Meijer F, Visscher H, Sheridan L, 2003 *Building regulations in Europe Part I* (DUP Science, Delft)
- Mueller D C, 2003 *Public choice III* (Cambridge University Press, Cambridge)
- Nielsen V L, 2006, "Are Regulators Responsive?" *Law & Policy* **28** 395-416
- NRCC, 2005 *National building code of Canada, 2005* (National Research Council Canada, Ottawa)
- Ogus A, 2002 *Comparing regulatory systems: institutions, processes and legal forms in industrialized countries* (Centre on Regulations and Competition, Manchester)
- Parker C, 2000, "Reinventing Regulation Within the Corporation: Compliance-Oriented Regulatory Innovation" *Administration & Society* **32** 529-565
- Price M E, Verhulst S, 2005 *Self-regulation and the Internet* (Kluwer Law International, The Hague)
- Price M E, Verhulst S G, 2000 *In search of the Self: Charting the Course of Self-Regulation on the Internet in a Global Environment* (Cardozo School of Law, New York)
- Prinsen H M, Vossen R M M, 2003, "Naleving en handhaving van regelgeving" *Justitiële verkenningen* **29** 53-69
- Rees J V, 1988 *Reforming the workplace a study of self-regulation in occupational safety* (University of Pennsylvania Press, Philadelphia)
- Reiss A, 1984, "Selecting Strategies of Social Control Over Organizational Life", in *Enforcing regulation* Eds K Hawkins, J M Thomas (Kluwer-Nijhoff, Boston) pp 23-35
- Rothstein H, Irving P, Walden T, Yearsley R, 2006, "The risks of risk-based regulation: insights from the environmental policy domain" *Environment international* **32** 1056-1065
- Scholz J T, 1984, "Voluntary Compliance and Regulatory Enforcement" *Law & Policy* **6** 385-404
- Seiler H, 2002, "Harmonised Risk-based Regulation – a legal viewpoint" *Safety Science* **40** 31-49
- Shapiro S A, Rabinowitz R, 2000, "Voluntary Regulatory Compliance in Theory and Practice: The Case of OSHA" *Administrative Law Review* **52** 97-156
- Sheridan L, Visscher H, Meijer F, 2002 *Building regulations in Europe Part II* (DUP Science, Delft)
- Sinclair D, 1997, "Self-Regulation Versus Command and Control? Beyond False Dichotomies" *Law & Policy* **19** 529-559
- Sparrow M K, 2000 *The Regulatory Craft. Controlling Risks, Solving Problems, and Managing Compliance* (R.R. Donnelley and Sons, Harrisonburg)
- Spence R, 2004, "Risk and regulation: can improved government action reduce the impacts of natural disasters?" *Building Research & Information* **32** 391-402
- Supiot A, 2007 *Homo juridicus on the anthropological function of the law* (Verso, London)
- Tyler T R, 1990 *Why people obey the law* (Yale University Press, New Haven)
- van den Heuvel J H J, 1994 *Overheid en beleid in Nederland*. (Uitgeverij Het Spectrum, Utrecht)
- van der Heijden J, 2007, "New enforcement strategies for Dutch municipal building control", in *Transitions* 177-191 (Australian Institute for Building Surveyors, Adelaide)
- van der Heijden J, Visscher H, Meijer F, 2006, "Development of Dutch Building Control (1982-2003)", in *Shaping the Change; XXIII international FIG congress* (FIG Office, Munich)
- van der Heijden J J, Visscher H J, Meijer F M, 2007, *Bouwtoezicht bij veelvoorkomende bouwactiviteiten* (Ministerie van VROM, Den Haag)
- van Rooij B, 2006 *Regulating land and pollution in China lawmaking, compliance, and enforcement : theory and cases* (University of Leiden, Leiden)

Weber M, 1964 [1921] *The theory of social and economic organization* (Free Press, New York)

Winter S C, May P J, 2001, "Motivation for Compliance with Environmental Regulations" *Journal of Policy Analysis and Management* **20** 675-698

Yates D, 2003 *Weathertightness of Buildings in New Zealand*. (Government Printer, Wellington)