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Agency Inaction and the Regulatory Commons Theory: Lessons from New York State's Experience with Dry Cleaner Co-Location

JOHN A. VASSALLO, III*

[I]n a confederacy the people, without exaggeration, may be said to be entirely the masters of their own fate. Power being almost always the rival of power, *the general government will at all times stand ready to check the usurpations of the state governments, and these will have the same disposition towards the general government.* The people, by throwing themselves into either scale, will infallibly make it preponderate. If their rights are invaded by either, they can make use of the other as the instrument of redress.¹

In the compound republic of America, the power surrendered by the people is first divided between two distinct governments, and then the portion allotted to each subdivided among distinct and separate departments. Hence, a double security arises to the rights of the people. *The different governments will control each other, at the same time that each will be controlled by itself.*²

Throughout the winter of 1787–1788, Alexander Hamilton, James Madison, and John Jay vigorously expounded the virtues of a federal form of government in order to convince the several states (principally New York) to ratify the newly proposed United

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1. THE FEDERALIST No. 28, at 180–81 (Alexander Hamilton) (Clinton Rossiter ed., 1961) (emphasis added).

2. THE FEDERALIST No. 51, at 323 (James Madison) (Clinton Rossiter ed., 1961) (emphasis added).

States Constitution.³ The quotations above demonstrate these great men's concern, a palpable concern at the time, with the propensity of government to oppress the people's rights and liberties. These statements show that the principal fear was of a government too active in the affairs of its subjects. It was evidently not within the foresight of even these great minds to predict that a fragmented federal government could lead to *inaction* that might also pose a rival threat to the people's health, safety, and welfare. Hindsight and experience, however, provide an enlightening perspective.

Administrative agencies are a hallmark of modern government in the United States, a nation in which regulations and policies impact virtually every aspect of citizen life. Contrary to common perception, recent scholarship suggests that the proliferation of regulatory agencies under the United States' federal system may, in certain circumstances, foster governmental inaction and disincentive to address the public good.⁴ This form of inaction is an integral aspect of a greater phenomenon that has been labeled the "regulatory commons," and both stem from the presence of too many unguided authorities in a particular area of regulation.⁵ The regulatory commons and its corresponding inaction have been evident in New York State's treatment of residences that are co-located with dry cleaners that use the chemical perchloroethylene ("perc" or "PCE")⁶ as a cleaning solvent.

Perc regulation has recently received ample attention at the national level. On July 27, 2006, the Environmental Protection Agency ("EPA") promulgated major amendments to the federal

3. See Clinton Rossiter, *Introduction to THE FEDERALIST PAPERS*, at viii–ix (Clinton Rossiter ed., 1961).

4. See William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1 (2003) [hereinafter *Regulatory Commons*]; William W. Buzbee, *The Regulatory Fragmentation Continuum, Westway, and the Challenges of Regional Growth*, 21 J.L. & POL. 323 (2005) [hereinafter *Westway*].

5. See *Regulatory Commons*, *supra* note 4, at 5; see also *infra* textual discussion associated with notes 41–51.

6. See Gabriella Aggazzotti et al., *Indoor Exposure to Perchloroethylene (PCE) in Individuals Living with Dry-Cleaning Workers*, 156 SCI. OF THE TOTAL ENV'T 133, 133 (1994) ("Of the volatile halogenated hydrocarbons, perchloroethylene (PCE) is the one most commonly detected when environmental exposure to these substances is being evaluated in humans."). Furthermore, a perc-trichloroethylene mixture is the most frequently occurring binary mixture (i.e., a mixture with only two chemical constituents) found at Superfund sites. See Lawrence H. Lash et al., *Renal Toxicity of Perchloroethylene and S-(1,2,2-Trichlorovinyl)glutathione in Rats and Mice: Sex- and Species-Dependent Differences*, 179 TOXICOLOGY & APPLIED PHARMACOLOGY 163, 163 (2002).

regulations governing perc use in dry cleaning.⁷ Then, on January 25, 2007, the State of California Air Resources Board issued a resolution to ban the use of perc in dry cleaning statewide.⁸ This resolution made California the first state in the nation to ban perc for use as a dry cleaning solvent. Shortly thereafter, a major television news program ran a segment that highlighted some of the controversies surrounding perc regulation.⁹ The program also documented a New York City family's concern that their apartment's close proximity to a dry cleaning establishment was hazardous to their health.¹⁰ This concern is a real one. In New York State, unlike in California, the public health hazards posed by dry cleaner and residence co-location have not been comprehensively or effectively addressed, even though four separate agencies participate in this area of regulation.¹¹

This comment argues that New York State's failure to resolve the co-location issue has been due to inaction characteristic of the regulatory commons phenomenon, and not to a lack of knowledge or technical infeasibility. The agencies involved in New York State's efforts to address this issue did not properly allocate authority and responsibility at the outset of the program initiative, and failed to follow through with what little allocation did occur. The agencies also failed to implement a system to track progress

7. See generally National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities, 71 Fed. Reg. 42,724 (July 27, 2006) (to be codified at 40 C.F.R. pt. 63); see also *infra* textual discussion associated with notes 108–111.

8. See Cal. Air Resources Board, Res. 07-5 at 2, 5 (Cal. 2007) (accepting the Board's staff proposal to "phase out the use of Perc machines for dry cleaning at the end of their useful life, and require all Perc machines to be removed from service by January 1, 2023"), available at <http://www.arb.ca.gov/regact/2007/perc07/res075.pdf>. The resolution directs the Air Resource Board's Executive Officer to adopt proposed additions and amendments to CAL. CODE REGS. tit. 17, § 93109 (1993) as they were set forth in an Air Resources Board staff report released on December 8, 2006. See *id.* The Board stated that adoption of an all-out ban on perc is the most effective way to "virtually reduce all potential Perc cancer risks from dry cleaning operations" and stimulate the "increased usage of alternative technologies and solvents." See *id.* at 3–4.

9. See Tracy Smith, Cancer Danger From Dry Cleaning?: Tracy Smith Explores Possible Risk of Commonly Used Chemical Called "Perc," CBS News, The Early Show, Feb. 23, 2007, <http://www.cbsnews.com/stories/2007/02/23/earlyshow/contributors/tracysmith/main2507444.shtml>.

10. See *id.* The family featured in this program claims to have experienced neurological effects (such as the inability to concentrate), nausea, headaches, and dizziness due to acute exposure to fugitive perc emissions that migrated from the dry cleaner facility into the attached apartments. The New York City Department of Health measured elevated concentrations of perc in the resident's breath, urine, and breast milk. See *id.*

11. See *infra* textual discussion associated with notes 36–40.

toward what should have been the program's ultimate objective—eliminating co-location altogether through zoning codes.

New York State's dry cleaner "story" imparts depth to the regulatory commons theory, which has thus far only been explicated through a project-specific example.¹² The dry cleaner example demonstrates how the regulatory commons phenomenon can play out in a regulatory *program* that involves numerous agencies at different levels of government. It also highlights the greater need for regional authorities to act as informational liaisons that facilitate interagency communication and provide closely-tailored environmental health protection to local communities. The regional authorities' role as intermediary is a critical one, as a growing number of agencies try to keep pace with the population growth, increased urban density, and public health threats, such as bioterrorism, that will certainly test the regulatory response system in the not-too-distant future.¹³

Part I of this comment will overview the regulatory commons theory recently articulated in the legal and political science literature.¹⁴ Part II will apply this theory to New York State's treatment of dry cleaner and residence co-location, a real life example that provides a classic exposition of regulatory commons inaction at a programmatic level. Part III will take the lessons and comments from the dry cleaner example and apply them to the solutions that have been advanced as possible means to remedy the regulatory commons phenomenon.

12. See *Westway*, *supra* note 4, at 323.

13. The author is a former Radiological Dose Assessor for Westchester County, N.Y., a densely populated area bordering New York City that is the location of the controversial Indian Point nuclear power plant. In a plant-related emergency, including a potential terrorist attack, dose assessors synthesize data that is transmitted from the plant to determine whether evacuation instructions should be communicated to the six cities, sixteen towns, and twenty-three villages that comprise the County. The dose assessor role is one of many that were created or bolstered after the September 11, 2001 terrorist attacks. The County's fortified role as security information liaison between state and federal agencies and the approximately fifty Community and one-hundred and fifty Non-Community Public Water Supply Systems situated in the County is another prime example of this regional authority's important role in the terrorism response system.

14. See generally sources cited *supra* note 4.

I. NOVEL THEORIES ON REGULATORY BEHAVIORS: INACTION & THE "REGULATORY COMMONS"

Recent Scholarship by William Buzbee, a Professor of Law at Emory Law School, has detailed a phenomenon of interagency dynamics¹⁵ that environmental enforcement agents will encounter at some point in their day-to-day practice. This scholarship describes and labels a form of regulatory inaction that may influence an enforcement authority that carries out its charge in concert with the activities of numerous other authorities in the same or similar areas of regulation. Aside from Buzbee's scholarship, theories of regulatory inaction have remained largely unaddressed by the legal and political science literature. A central aspect of Buzbee's theory, termed the "regulatory commons," is the ideological link he makes between the early environmental movement's "tragedy of the commons" scenario and the regulatory enforcement landscape in a federalist society.¹⁶ The starting point to understanding Buzbee's theory, then, must begin with reference to Garrett Hardin's landmark publication *The Tragedy of the Commons*.¹⁷

Garrett Hardin's theory on the exhaustibility of commons' resources (i.e., his tragedy of the commons), though often cited to promote privatization,¹⁸ was developed principally to show that human population growth and all of its associated problems would continue unchecked if left to the decision-making processes of the rational individual actor.¹⁹ Hardin's explanation of how the rational individual will consume resources from a commonly owned resource pool can be summarized as follows: faced with the choice of removing additional units from the commons resource, the individual weighs the benefit of removal against its detriment, but only as to himself.²⁰ In the short-term, the individual's additional consumption from the common pool resource only marginally harms that individual and the resource pool in comparison to the substantial personal gain the individual accrues from extracting

15. *See id.*

16. *See Regulatory Commons*, *supra* note 4, at 4–22.

17. Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968).

18. *See* ZYGMUNT J.B. PLATER, ROBERT H. ABRAMS & WILLIAM GOLDFARB, ENVIRONMENTAL LAW & POLICY: NATURE, LAW & SOCIETY ch. 2, § 1, at 34–40 (1st ed. 1992).

19. *See* Hardin, *supra* note 17, at 1244.

20. *See id.* ("As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, 'What is the utility to me of adding one more animal to my herd?'").

the additional resources.²¹ But over the long-term, all individual actors rationally seek to improve their lot by maximizing their use of the commons resource.²² Thus, the individual actor's consumption of only a fraction of the common pool resource aggregates to the cumulative detriment of the whole. As Hardin wrote, "[t]herein is the tragedy. Each man is locked into a system that compels him to increase [his utilization of a common resource] without limit—in a world that is limited."²³

Hardin's proposed solution was to "legislate temperance,"²⁴ and it is in this solution that the connection between Hardin's tragedy of the commons and Buzbee's regulatory commons theory begins to take shape. According to Hardin, "[t]he social arrangements that produce responsibility are arrangements that create coercion, of some sort."²⁵ In the modern field of environmental law, these "arrangements" take the form of myriad environmental regulations that are imposed by an equally formidable number of administrative agencies. Hardin proposed this administrative forum as the ideal vehicle by which to keep the law in step with changing societal principles of morality.²⁶ But Hardin, citing John Adams, was wary of a government by men, and not law, for he believed "[b]ureau administrators, trying to evaluate morality of acts in the total system, are singularly *liable to corruption*."²⁷ Keeping the administrative custodians honest, Hardin stated, would be the greatest challenge to legitimizing a regulatory sys-

21. Hardin uses the example of herdsmen who graze their cattle on a common pasture. *Id.* When faced with the choice of adding another beast to his herd, the individual herdsman performs a two-factor balancing analysis. *Id.* "The positive component [of the analysis] is the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility [from adding the additional animal] is nearly +1." *Id.* "The negative component [of the analysis] is a function of the additional overgrazing [of the common pasture] created by one more animal. Since, however, the effects of overgrazing are shared by all of the herdsmen, the negative utility for any particular decision-making herdsman is *only a fraction of -1*." *Id.* (emphasis added). In a similar vein, with regard to problems of pollution, the short term cost-benefit analysis leads the rational individual to dispose of his waste into the collective commons, for it will be cheaper to do so in comparison to treating the waste with his own individual resources. *See id.*

22. *See* Hardin, *supra* note 17, at 1244.

23. *Id.*

24. *See id.* at 1245-46.

25. *See id.* at 1247.

26. *See id.* at 1245-46. "That morality is system-sensitive escaped the attention of most codifiers of ethics in the past . . . The laws of our society . . . are poorly suited to governing a complex, crowded, changeable world . . . Our epicyclic solution is to augment statutory law with administrative law." *Id.* at 1245.

27. *See id.* at 1246.

tem based on administrative law:²⁸ “*Quis custodiet ipsos custodes?*—”Who shall watch the watchers themselves?”²⁹ Hardin’s general warning to “watch the watchers” was made in the context of fear of agency corruptibility. Still, this warning reflects a broader sentiment, one that is wide enough to encompass the notion that merely entrusting the public’s health to numerous administrative agencies provides inadequate assurance that these agencies will in fact take action.

Garrett Hardin, like Hamilton, Madison, and Jay before him, was concerned more with potential governmental malfeasance, and also failed to consider the dangers of regulatory inaction.³⁰ Buzbee’s “regulatory commons” theory is the first to comprehensively address this analytical gap. The theory draws a connection to Garrett Hardin’s administrative agency solution to the tragedy of the commons and shows that regulatory agencies may sometimes behave in a manner similar to Hardin’s rational individual actor. Like the rational individual, a rational administrative agency may avoid taking action in an area of regulation in which other regulators are present and are perceived to be equally capable of addressing the regulatory issue.³¹

After the connection to Garrett Hardin’s tragedy of the commons, the next step in understanding the regulatory commons theory is recognizing the United States’ government as a multi-layered, federal framework.³² The hierarchical and lateral organization of government departments under this federal system creates an intentionally fragmented regulatory regime.³³ Vertical fragmentation results from the jurisdictional division of agencies between the federal and state levels, with further division at the state level between state government, regional authorities, and local municipal governments.³⁴ Horizontal fragmentation results from jurisdictional division across areas of regulatory subject matter.³⁵

28. *See id.*

29. *Id.* at 1245–56.

30. *See generally* source cited *supra* notes 1, 2, & 3.

31. *See infra* textual discussion associated with notes 41–51.

32. *See generally* source cited *supra* notes 1, 2, & 3.

33. *See id.*

34. *See, e.g., Westway, supra* note 4, at 344 (“Vertical fragmentation refers to the division of regulatory turf among layers of political actors and regulators [I]n most complex regulatory settings, federal, state and local officials play roles, with each further handing authority down to administrative agencies and sometimes citizens.”).

35. *See id.* at 347.

Consider, for example, the regulatory codes and policies that a dry cleaning facility must comply with to operate in Westchester County, N.Y. The facility must follow the federal and state operational requirements contained in 40 C.F.R. § 63³⁶ and title 6, § 232 of the *Official Compilation of Codes, Rules, and Regulations of the State of New York* to obtain a permit to operate from the New York State Department of Environmental Conservation ("NYSDEC").³⁷ The facility remains subject to annual compliance inspections, at minimum, even after this permit has been issued.³⁸ The dry cleaner is also subject to permitting and inspection regulations, and other policy initiatives, which the New York State Department of Health ("NYSDOH") and the Westchester County Department of Health ("WCDOH") require beyond what is mandated by the NYSDEC.³⁹ Finally, the facility must meet all applicable local building and zoning codes. Requirements for dry cleaning establishments in the City of Yonkers, N.Y., for example, show the specificity with which local codes can address aspects of dry cleaner regulation. These requirements range from standards for facility structural materials, to limitations on chemical usage, ventilation requirements, and restrictions on facility location in the community.⁴⁰

36. See 40 C.F.R. § 63 (2006).

37. See N.Y. COMP. CODES R. & REGS. tit. 6, §§ 232.14, .16 (2006).

38. The NYSDEC has instituted a "Third Party" inspection system whereby non-departmental inspectors are certified to conduct the mandatory annual inspections of permitted dry cleaners. *Id.*

39. The Westchester County Department of Health has instituted an annual dry cleaner permitting and inspection program pursuant to WESTCHESTER COUNTY, N.Y., SANITARY CODE ch. 873, art. XIII, § 873.1306.1, as amended in 1993.

40. The City of Yonkers, N.Y., Zoning Code provides as follows:

(1) Any on-site dry-cleaning establishment shall adhere to the following requirements: (a) Such processes shall be conducted within an enclosed building. (b) Such uses shall provide mechanical ventilation to minimize any solvent buildup in the customer area and to control any minor solvent leakage, provide a supply of make-up air and locate exhaust ventilation stacks in accordance with Department of Health standards, the recommendations of the National Automatic Laundry and Cleaning Council or the American Conference of Governmental Industrial Hygienists. This exhaust ventilation shall be provided on a continuous basis while the establishment is open for business. The fan motor wiring shall be such that the dry-cleaning equipment cannot be operated unless the fan system is in operation. (2) No such establishment shall be permitted in any building containing residential uses.

YONKERS, N.Y., ZONING CODE ch. 43, art. VI, § 43-36(H) (2000 & Supp. 2007), available at <http://www.generalcode.com/webcode2.html#newy>; See also YONKERS, N.Y., FIRE CODE ch. 59, art. XIII, §§ 59-238, 239 (1995 & Supp. 2007), available at <http://www.generalcode.com/webcode2.html#newy>. "It shall be unlawful to operate a dry-

The vertical and horizontal fragmentation present in New York State's framework for dry cleaner regulation is a significant element of the regulatory commons theory, and contributes to what Buzbee terms "jurisdictional mismatch."⁴¹ Jurisdictional mismatch occurs if multiple agencies are able to participate in an area of regulation, but no one agency has jurisdiction that is squarely matched to the targeted harm or activity.⁴² When jurisdictional mismatch is present, the regulatory opportunity is analogous to a commons resource into which an agency will be reluctant to invest. According to Buzbee:

Central to the regulatory commons dynamic are [sic] the concepts [sic] of the regulatory opportunity as a commons resource and the idea of jurisdictional mismatch. . . . If a social ill is juxtaposed against a fragmented or overlapping legal or political setting, especially if the ill's causes and effects do not fall within a particular jurisdiction, the social ill is less likely to be addressed by regulatory action than in settings where a particular institution is viewed by all as having regulatory primacy.⁴³

The regulatory commons can be crudely summarized as follows: 1) there are many potential regulatory opportunities in society, all of which are up for grabs among numerous agencies;⁴⁴ 2) the opportunity present in the general regulatory arena is analogous to the common pool resource;⁴⁵ and 3) the agencies capable of crafting a regulatory program to meet the opportunity are the consumers of the resource.⁴⁶ Historically, the predominant view advanced in the legal and political science literature is that multi-agency involvement in a particular regulatory area will lead to over-regulation, much as the common resource is over-consumed

cleaning . . . establishment without first having obtained a permit from the Commissioner." *Id.* § 59-238. "Dry-cleaning . . . which include[s] the use of flammable liquid solvent above twenty-five (25) in the Underwriter's Laboratories, Inc., schedule is hereafter prohibited in the City of Yonkers." *Id.* § 59-239(A). "No change shall be made in the solvent used in the equipment to a solvent in a more hazardous class." *Id.* § 59-239(B).

41. See *Regulatory Commons*, *supra* note 4, at 21-23 ("[A] single government regulator seldom exists. In settings of regulatory fragmentation, mismatch, and overlap, regulatory commons dynamics will exist.").

42. See *id.* at 23.

43. *Id.* at 22.

44. See *id.* "A regulatory opportunity is itself the resource to be harvested or capitalized on through regulatory action, much as a fish or a pasture is the resource in the usual commons tale." *Id.*

45. See *supra* text accompanying note 44.

46. See *id.*

in the traditional commons scenario.⁴⁷ Buzbee's theory takes a different tack by suggesting that over-regulation is only one possible outcome on a continuum of outcomes that may occur if many authorities are present in the same area of regulation.⁴⁸

On the polar opposite end of this continuum, the presence of too many agencies can lead to partial, or even total, inaction to address a perceived social harm.⁴⁹ Thus, while regulatory commons "dynamics *could* lead to excessive and potentially conflicting regulation by numerous policymakers in diverse institutions, . . . [they will] *more often . . . create incentives for political inattention.*"⁵⁰ Similar to Hardin's rational farmer, who neglects to maintain the common pasture knowing well that any investment would also benefit other consumers of the common resource, the rational regulatory agency avoids spending limited funds to develop programs that other agencies can take credit for or appropriate for their own use at no expense.⁵¹

II. DRY CLEANER CO-LOCATION AND THE REGULATORY COMMONS IN NEW YORK STATE

Dry cleaning facilities that use perc as a cleaning solvent in New York State are covered by several layers of regulation. These facilities are subject to the federal National Emission Standards for Hazardous Air Pollutants ("NESHAP") contained in 40 C.F.R. § 63, and to the state operational requirements that are contained in Part 232 of the New York State administrative code. Facilities must also comply with NYSDOH and county health department regulations and guidelines. Additional county or local municipal requirements may also be applicable.⁵²

The vast majority of dry cleaners use perc,⁵³ and the service-oriented nature of this business means that facilities are sited in

47. See *Regulatory Commons*, *supra* note 4, at 37–42 ("[A] vast body of literature, mostly growing out of early public choice scholarship, . . . posits excessive and imprudent regulation.").

48. See *Westway*, *supra* note 4, at 323–24.

49. *Id.* at 324 ("At one end of the spectrum, regulatory fragmentation will create incentives for regulatory inattention and inaction, or perhaps parochial or myopic views failing to look at social welfare. . . .").

50. See *Regulatory Commons*, *supra* note 4, at 22 (emphasis added).

51. *Id.* at 30–37.

52. See *supra* textual discussion associated with notes 36–40.

53. See Avima M. Ruder, Elizabeth M. Ward & David P. Brown, *Mortality in Dry-Cleaning Workers: An Update*, 39 AM. J. INDUS. MED. 121, 130 (2001) ("[Perc] is used now by over 90% of all dry-cleaning plants, by other industries as a degreaser, and as

close proximity to retail shops, food establishments, and residential locales as a matter of customer convenience. Dry cleaners are frequently located on the ground floor of multi-unit apartment complexes in urban and suburban areas;⁵⁴ this physical arrangement has been termed “co-location.”⁵⁵ To varying degree, all of the agencies that regulate dry cleaning facilities in New York State currently have rules or policies to directly address the co-location issue. Yet even after thirteen years with this issue on the environmental health radar, these agencies have been unable to prevent the migration of fugitive perc emissions from dry cleaning establishments into adjacent residences.⁵⁶ This is a classic instance of regulatory commons inaction.

The mundane nature of dry cleaning and the pervasiveness of dry cleaners in the cosmopolitan environment raise the question of why this industry is so heavily regulated. Perc inhalation exposure is closely linked to a laundry list of adverse human health outcomes, including numerous neurological, kidney, liver, reproductive, and respiratory pathologies.⁵⁷ The need to prevent this exposure through regulation is magnified by observations that perc is the most commonly found volatile halogenated hydrocarbon in human blood.⁵⁸ This chemical is highly soluble in blood and adipose tissue, and has a considerably longer half-life *in vivo* (i.e., in the human body) than most other solvents.⁵⁹ Not surprisingly, the results of biological measurements taken from people living next to cleaners over a one-week period have shown a marked in-

a solvent in the manufacture of rubber solutions, paint removers, and printing inks.”). Several million people worldwide are estimated to work in the dry cleaning industry. Thomas L. Vaughn et al., *Work in Dry Cleaning and the Incidence of Cancer of the Oral Cavity, Larynx, and Oesophagus*, 54 OCCUPATIONAL ENVTL. MED. 692, 692 (1997).

54. See Michael J. McDermott et al., *Tetrachloroethylene (PCE, Perc) Levels in Residential Dry Cleaner Buildings in Diverse Communities in New York City*, 113 ENVTL. HEALTH PERSPECTIVES 1336, 1339 tbl.2 (2005), available at <http://www.ehponline.org/members/2005/7414/7414.pdf> (measuring residential perc indoor air concentrations in twelve of twenty-four apartment buildings with dry cleaner facilities in New York City at a range of 194 ug/m³ to 5,000 ug/m³).

55. See Memorandum from Mike Heaney, E. Research Group, Inc., to Rhea Jones, U.S. EPA, Estimating the Fraction of Dry Cleaning Facilities that are Collocated (Mar. 11, 2004), available at <http://www.epa.gov/air/drycleaningrule/pdfs/11-14-05background.pdf>. “This memorandum summarizes information on the fraction of area source dry cleaning facilities that are *collocated* in the same building as residences or other businesses.” *Id.* (emphasis added).

56. See *supra* note 54.

57. See generally Ruder, *supra* note 53, at 121.

58. See Aggozzotti, *supra* note 6, at 133.

59. *Id.*

crease in perc concentration over the sampling period,⁶⁰ reflecting the compound's cumulative nature and lengthy *in vivo* residence time. Cumulative perc exposure risk, even at low levels of exposure, is therefore a particularly relevant concern. Furthermore, perc seemingly defies containment efforts, and a perc-trichloroethylene mixture is the binary mixture (a mixture composed of only two chemical constituents) most often found at Superfund sites.⁶¹

The federal government regulates perc through its power over interstate commerce and its listing of the chemical as a hazardous air pollutant under the Clean Air Act.⁶² A major purpose of the Act is to require the development of NESHAPs that target air pollutant emissions sources.⁶³ The standards contained in 40 C.F.R. §§ 63.320-325 constitute the NESHAP for dry cleaning facilities that use perc as a cleaning solvent.

In the preamble to the dry cleaner NESHAP, the EPA makes clear that its primary objective was to quickly promulgate broad dry cleaner rules so that perc concentrations in the nation's ambient air could be lowered as quickly as possible.⁶⁴ Potential indoor air contamination, and thus the issue of co-location, was an ancillary consideration, if any consideration at all.⁶⁵ The preamble also discusses the EPA's decision to take a more lenient approach to the regulation of area-source dry cleaners, the facility category that pervades the urban and suburban landscape.⁶⁶ Facilities in the area-source category are the type of facility that is most likely to co-locate with residential buildings. Thus, by leniently regulating area-source cleaners, the EPA again conveyed a strong message that the federal government was unwilling to take a firm position against co-location. The EPA's rationale for imposing

60. See Kimberly H. Thompson & John S. Evans, *Worker's Breath as a Source of Perchloroethylene (Perc) in the Home*, 3 J. EXPOSURE ANALYSIS & ENVTL. EPIDEMIOLOGY 417, 419 (1993).

61. See Lash, *supra* note 6, at 162.

62. Clean Air Act Amendments of 1990, 42 U.S.C. § 112(b) (2006).

63. See *id.* § 112(c)-(d).

64. See National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities, 58 Fed. Reg. 49,354, 49,372 (Sept. 22, 1993) (to be codified at 40 C.F.R. pts. 9, 63) ("Today's rule, while targeted primarily at reducing PCE contamination of *outdoor air*, may reduce indoor air contamination in some locations . . .") (emphasis added).

65. See *id.*

66. See National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities, 58 Fed. Reg. at 49,365-66 (discussing why the agency chose not to implement "Maximum Available Control Technology" standards for area source dry cleaners, the type most likely to co-locate with residences in the mixed-use urban environment).

less-stringent regulations on area source dry cleaning facilities is explained by the following language in the NESHAP preamble:

The EPA does not agree that the health effects information regarding PCE is so compelling that it warrants application of MACT [(Maximum Available Control Technology)] to all small area source dry cleaners. There are a range of opinions in the scientific community as to the potential for PCE to cause cancer in humans. Further, to the extent that PCE may be a human carcinogen, existing evidence indicates that its potency is very low.⁶⁷

This sentiment set the tone for the weak dry cleaning machine standards contained in the NESHAP,⁶⁸ and clearly stood as another independent ground that reflected the EPA's regulatory posture against taking any real action to prohibit dry cleaner co-location.

Dry cleaner co-location was concededly a nascent public health issue in the United States when the NESHAP was first promulgated in September 1993.⁶⁹ Most of the non-occupational perc exposure studies conducted since then have focused on dry cleaners that are co-located with residences.⁷⁰ This focus strongly indicates that perc migration into residential indoor air environments presents a perc-related health risk second only to the exposure scenarios evident in occupational environments in which the chemical is used. Less attention has been given to perc exposure risk in businesses attached to dry cleaners, perhaps because customers are transient, and are therefore only infrequently exposed to low concentrations. Furthermore, compared to workers in the dry cleaner facility, workers in a co-located business will be exposed to much lower concentrations of perc during a standard

67. *Id.*

68. See 40 C.F.R. § 63.322 (2006).

69. See National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities, 58 Fed. Reg. at 49,372 ("In order to gain additional insight and understanding into the issues of indoor air pollution . . . associated with dry cleaning facilities, the EPA will convene a public meeting The objective of this public meeting will be to gather additional information and solicit public comment on the magnitude and severity of the problems highlighted by the [New York co-location study]").

70. See, e.g., Judith S. Schreiber et al., *An Investigation of Indoor Air Contamination in Residences Above Dry Cleaners*, 13 RISK ANALYSIS 335 (1993); Gary Garetano & Michael Gochfeld, *Factors Influencing Tetrachloroethylene Concentrations in Residences Above Dry-Cleaning Establishments*, 55 ARCHIVES OF ENVTL. HEALTH 59 (2000).

work day. Occupants of co-located residences, on the other hand, may be exposed to relatively low concentrations of perc as compared to dry cleaner workers, but may be exposed over periods of time greatly exceeding the standard eight-hour workday (consider, e.g., the elderly, stay-at-home parents, disabled persons, etc.). Still, one non-residential perc study documented significantly elevated perc levels of 2200 ug/m³ in a store adjacent to a dry cleaner, and the co-located business exposure scenario certainly warrants further inquiry.⁷¹

The migration of fugitive perc emissions from dry cleaners into attached or nearby residences was first identified as a public health issue by a study conducted in Germany in the late 1980's.⁷² The 1991 Schreiber study, referenced in the preamble to the dry cleaner NESHAP, was the first major study on co-location performed in the United States.⁷³ This study was jointly conducted by the NYSDOH and the NYSDEC.⁷⁴ The Schreiber study compared airborne perc concentrations in six residences that were co-located with dry cleaners in the Albany, N.Y., area, against concentrations in the indoor air in control residences and the ambient air.⁷⁵ Perc concentrations were significantly higher in the co-located residences (ranging from 300 ug/m³ to 55,000 ug/m³) as compared to control residences that were located at a distance from dry cleaner facilities (ranging from < 6.7 ug/m³ to 103 ug/m³).⁷⁶

The exposure risks of living next to a dry cleaning establishment have been well documented since the seminal 1991 Schreiber study. For example, a study conducted by Garetano and Gochfeld in 1995 measured perc concentrations in the indoor air of twelve co-located residences in New Jersey and found that concentrations ranged from 470 ug/m³ to 4,200 ug/m³.⁷⁷ Similarly, in 2002, a study conducted by Schreiber et al. measured perc concentrations in two New York City apartment buildings in which dry cleaning facilities were sited on the first floor, and found that mean perc concentration throughout the building ranged from 650

71. See Garetano & Gochfeld, *supra* note 70, at 63 tbl.1.

72. See Schreiber et al., *supra* note 70, at 343 (discussing K. Reinhard, W. Dulson & M. Exner, *Concentrations of Tetrachloroethylene in Indoor-Air and Food in Apartments in the Vicinity of Dry Cleaning Shops*, 189 ZENTRALBL. HYG. UMWELTMED 111 (1989)).

73. See generally *id.*

74. See *id.* at 336.

75. See *id.*

76. See *id.* at 343.

77. See Garetano & Gochfeld, *supra* note 70, at 63 tbl.1.

ug/m³ to 6,100 ug/m³.⁷⁸ Then, in 2005, McDermott et al. measured concentrations of perc in the indoor air of apartment buildings sited with dry cleaners in New York City, and found that in twelve of twenty-four apartment buildings assessed, perc concentrations ranged from 194 ug/m³ to 5,000 ug/m³.⁷⁹

Collectively, the co-location studies have identified several factors that may facilitate perc migration from a dry cleaning establishment into attached or nearby residences. First, as a general rule, the concentration of perc measured in a residence co-located with a dry cleaner is directly linked to the concentration present in the dry cleaner—perc concentrations in the residence will increase in proportion to any increase observed within the facility.⁸⁰ The location of emissions exhaust equipment is another factor, as it has been observed that perc-saturated emissions deliberately exhausted from a facility can make their way from the outside air back into the building.⁸¹ In addition, studies conducted in the early 1990's strongly associated elevated perc concentrations in co-located residences with the type of machine in use at the dry cleaner facility.⁸² Other studies emphasized the role of building materials⁸³ and facility exhaust ventilation equipment.⁸⁴ The take home message from all of these studies appears to be that any variable that can increase the perc concentration within a dry cleaner is also a factor that leads to an increase in the perc concentration measured in a co-located residence. Beyond those factors already mentioned, additional considerations include the type of machine emission controls and machine capacity,⁸⁵ garment off-gassing,⁸⁶ and the degree of operator compliance with machine inspection and maintenance requirements imposed by dry cleaner regulations.⁸⁷

78. See Judith S. Schreiber et al., *Apartment Residents' and Day Care Workers' Exposures to Tetrachloroethylene and Deficits in Visual Contrast Sensitivity*, 110 ENVTL. HEALTH PERSPECTIVES 655, 656 (2002).

79. See McDermott et al., *supra* note 54, at 1339 tbl.2.

80. Conversation with Stanley M. Byer, Research Scientist III, N.Y. State Dep't of Env'tl. Conservation, Bureau of Stationary Sources, & Daniel P. Sharron, Pub. Health Specialist II, N.Y. State Dep't of Health, Bureau of Toxic Substance Assessment, in Westchester County, N.Y. (Apr. 5, 2005).

81. See Garetano & Gochfeld, *supra* note 70, at 66.

82. See Schreiber et al., *supra* note 70, at 340.

83. See *id.* at 343.

84. See Garetano & Gochfeld, *supra* note 70, at 66.

85. See McDermott et al., *supra* note 54, at 1341.

86. See Garetano & Gochfeld, *supra* note 70, at 66.

87. *Id.*

Perc may also indirectly make its way into the residential indoor air environment through the exhaled air or clothing of dry cleaner workers, a transport mechanism that to date has been greatly understudied and underestimated.⁸⁸ This offsite introduction would result in what has been termed paraoccupational exposure, a type of exposure that occurs when workers transport a hazardous material from the workplace into the home, at which point family members may be exposed.⁸⁹ Paraoccupational exposure has more traditionally been associated with hazardous materials in particulate form, and with substances such as lead, asbestos, and arsenic,⁹⁰ but may be relevant to perc transport as well.⁹¹ An in depth discussion of paraoccupational and other potential perc transport mechanisms and exposure routes is far beyond the scope of this comment.

The preamble to the dry cleaner NESHAP did make direct reference to the environmental health hazards posed by dry cleaner and residence co-location. The issue was acknowledged by the EPA's response to commenters who had pressed the Agency to implement stricter vapor barrier and facility ventilation standards.⁹² But the EPA decided not to codify a solution in the dry cleaner regulations.⁹³ Instead, in the preamble, the Agency expressed hope that state and local governments would initiate their own studies to determine whether dry cleaners and residences should co-exist in zoning code harmony.⁹⁴ The EPA also asked states and the public to "provide their views on . . . [t]he appropri-

88. See Thompson, *supra* note 60, at 417.

89. See *id.*

90. *Id.*

91. *Id.*

92. See National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities, 58 Fed. Reg. at 49,370. Commenters on the proposed rule had suggested that installation of vapor barriers around the dry cleaning machine equipment, and all floors, walls, and ceilings should be required to prevent the migration of fugitive perc emissions from the facility into adjacent residences and food service establishments. *Id.* Commenter's also recommended including ventilation standards to facilitate air exchange in the dry cleaner facility, which would reduce the amount of perc available for migration into co-located residences. See *id.* The EPA determined that any ameliorative measures, such as vapor barriers and ventilation requirements, would be best addressed on a site-specific basis at the local level. See *id.*

93. See *id.*

94. See *id.* at 49,374 ("While the EPA conducts follow-up activities related to dry cleaners, the EPA notes that there are opportunities for State and local governments to take action as well. For example, State and local governments may wish to investigate whether indoor air . . . in their jurisdictions is being contaminated with PCE [perc] from dry cleaning. If a State or local government finds an indoor air pollution

ate Federal role in encouraging or requiring steps to reduce PCE contamination of indoor air.”⁹⁵ The EPA did nothing more to address co-location until the NESHAP was finally amended on July 27, 2006, thirteen years later.⁹⁶

In New York State, even though aggressive dry cleaner regulations have been developed to bolster the federal NESHAP,⁹⁷ no agency has taken any real lead to eliminate co-location. Critically, no real efforts have ever been made to recruit local zoning authorities to implement what is probably the most obvious solution—banning dry cleaner and residence co-location altogether through zoning codes. Instead, similar to the call for local assistance made by the EPA in the NESHAP preamble, the NYSDEC regulations express hope that municipalities will zone away the co-location problem. This hope is reflected by language that is embedded within the operative component of NYSDEC’s part 232 dry cleaner regulations: “The issue of whether a particular proposed or existing mixed use facility may be allowed to co-locate or remain co-located is to be determined by the appropriate State or local officials responsible for implementation of any relevant building codes or zoning ordinances.”⁹⁸ Furthermore, the part 232 regulations contain no provisions that extend directly into the residential air space, and co-location is addressed only insofar as equipment engineering controls are calculated to improve perc emissions containment.⁹⁹

The NYSDOH has tried to fill the gap in the NYSDEC regulations by establishing *guideline* perc concentration targets for resi-

problem, for example, the government may wish to consider whether collocation of a dry cleaner in the same building with residences is appropriate.”).

95. *See id.* at 49,373.

96. *See supra* note 7.

97. *See generally* N.Y. COMP. CODES R. & REGS. tit. 6, § 232 (2007). The NYSDEC regulations fill in many of the regulatory gaps left open by the federal dry cleaner NESHAP. For example, compared to the NESHAP, NYSDEC part 232 standards that establish which types of dry cleaner machine may be used in a facility are more focused on maximum control technology implementation. *See id.* §§ 232.4, .5, .6. Part 232 also places primary emphasis on dry cleaner co-location by scaling the machine control equipment standards according to the degree of public health hazard posed by the dry cleaner’s location. *See id.* § 232.6(b). The regulations create a hierarchy of control equipment stringency: the requirements for mixed-use facilities are clearly more stringent than standards for stand-alone facilities, and the mixed-use residential subcategory is more strictly controlled than the mixed-use commercial subcategory. *See id.*

98. *Id.* § 232.6(b)(4).

99. *See generally id.* Nowhere do the rules specify a Maximum Contaminant Level (MCL) for perc that would trigger enforcement actions to reduce or eliminate perc exposure in co-located residences.

dential indoor air.¹⁰⁰ Accordingly, the NYSDOH *recommends* that perc concentration in residential indoor air be kept below a range of 100 ug/m³ to 1000 ug/m³, and ideally below 100 ug/m³.¹⁰¹ However admirable the NYSDOH initiatives may be, these guidelines are not maximum contaminant levels (MCLs), but are mere recommendations that are unenforceable standing alone. Under these guidelines, the NYSDOH incurs no obligation to force dry cleaners to alter facility conditions so that elevated perc concentrations in a co-located residence are reduced to the recommended levels. This discretion does not further the exposed residents' best interests. And, if the NYSDOH does act, compelling the dry cleaner to help lower perc concentrations in the co-located residence can be problematic without readily enforceable MCLs, particularly if the cleaner is in compliance with NYSDEC and other regulations. The absence of MCLs that are enforceable against a facility is another aspect of the NYSDOH approach that clearly does not further the best interests of exposed residents. Clearly, the NYSDOH's soft guidelines approach is a significant defect in this agency's policy on dry cleaner and residence co-location.

Like the EPA and the NYSDEC, the NYSDOH has also articulated its intention to recruit the assistance of local zoning and building authorities in the agency's efforts to eliminate co-location. In 1997, the NYSDOH Division of Environmental Health Assessment distributed a memorandum to NYSDOH Regional Directors, District Directors, and City & County Health Commissioners, detailing an anticipated plan of attack.¹⁰²

Although beyond the regulatory scope of DEC Part 232, DOH has made commitments to carry out activities related to dry cleaning facilities and to assess potential impacts on public health. *Recognizing the limitations of resources and staff at both DOH and Local Health Departments*, the following activities are anticipated:

1. The [NYS]DOH will work with zoning and building code authorities to seek amendments to the codes that will prohibit new

100. See N.Y. STATE DEP'T OF HEALTH, FACT SHEET: TETRACHLOROETHENE (PERC) IN INDOOR AND OUTDOOR AIR 5 (2003), http://www.health.state.ny.us/nysdoh/enviro/btsa/fs_perc.pdf.

101. *Id.*

102. See Memorandum from Nancy K. Kim, Dir., Div. of Env'tl. Health Assessment, N.Y. Dep't of Health, to Reg'l Dirs., Dist. Dirs. & City & County Comm'rs/Pub. Health Dirs. 1 (Aug. 19, 1997) (on file with author) (Agreement concerning Part 232 N.Y.S. Dep't of Env'tl. Conservation Regulation).

dry cleaners from residential buildings, and thereby reduce the public's exposure to perchloroethylene.

2. The [NYS]DOH will continue to direct and develop the Dry Cleaner Program in which assessments of indoor air quality are conducted *in response to complaints* and *in response to* information suggesting that substantial exposure to perchloroethylene may be occurring . . .

4. The [NYS]DOH will continue to *recommend* that the Local Health Departments assess indoor air quality (*as staffing allows*) *in response to complaints* and *in response to* information from inspection reports which suggest that substantial exposure to perchloroethylene may be occurring.

5. The [NYS]DOH will compile a database of information from the [Local Health Department] facility inspection reports and indoor air investigations . . .

6. The [NYS]DOH and Local Health Departments will continue to use existing authority under the Public Health Law to order the owner of any dry cleaning machine or facility to immediately abate nuisance conditions found to be detrimental to life and health . . .¹⁰³

However, despite the encouraging commitments anticipated by this memorandum, no notable state-wide efforts were ever taken to proactively assess the risks of co-location or to eliminate the problem altogether using local zoning authority.¹⁰⁴

III. FILLING THE GAPS: EXTRACTING LESSONS FROM THE DRY CLEANER STORY

The regulatory commons phenomenon has been a subtle reality in New York State's treatment of dry cleaner co-location, a fragmented program that cannot be fully discerned until the codified regulations, practical policies, and numerous prerogatives of at least three agencies have been reconciled.¹⁰⁵ Inaction, characteristic of the regulatory commons theory recently articulated by Buzbee, has prevented the systematic elimination of dry cleaner and residence co-location in New York State. In line with the regulatory commons theory, the agencies participating in this program have behaved in a manner similar to rational individuals who seek to conserve limited resources and act in their own best-inter-

103. *Id.* at app. 3 (emphasis added).

104. *See infra* text accompanying note 132.

105. *See supra* textual discussion associated with notes 36–40.

est.¹⁰⁶ Without compelling legal mandates or other incentives emanating from controlling jurisdictional authority, virtually none of the agencies in New York State's dry cleaner co-location program have made significant headway towards developing a proactive dry cleaner co-location policy or eliminating the problem altogether.¹⁰⁷ Nor have these agencies fully capitalized on the resources and expertise that each are already committing to move forward in this regulatory initiative.

The EPA amended 40 C.F.R. § 63 on July 27, 2006,¹⁰⁸ and in doing so, finally stepped up to confront the health hazards posed by dry cleaner and residence co-location.¹⁰⁹ Under these amendments, new dry cleaning facilities that use perc onsite are barred from setting up shop in residential buildings, and existing co-located facilities are to be phased out over a fourteen-year period.¹¹⁰ This blunt prohibition and phase-out approach to eliminating co-location is a straightforward and obvious solution. It could easily have been put into place at a much earlier date, perhaps thirteen years ago when the NESHAP was promulgated in 1993. Then, the anticipated fourteen-year phase-out would have been accomplished by 2007. And, it is not necessary for the prohibition against dry cleaner and residence co-location to have emanated from the federal government. New York State agencies at both the state and local level have independent jurisdiction under public health-focused laws, and zoning codes, to prohibit co-location outside of any imperative issued by the federal government.¹¹¹

Unfortunately, the July 2006 NESHAP amendments do not end the dry cleaner co-location story in New York State. Residents currently living in buildings with dry cleaning facilities that use perc as a cleaning solvent continue to be at risk from exposure to migrating fugitive perc emissions. Thus, there is still a need to develop a more effective and proactive dry cleaner co-location enforcement protocol, as the NESHAP will continue to authorize

106. See *supra* textual discussion associated with notes 41–51.

107. See *supra* Part II.

108. See *generally* National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities, 71 Fed. Reg. 42,724 (July 27, 2006) (to be codified at 40 C.F.R. pt. 63).

109. See *supra* Part II.

110. National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities, 71 Fed. Reg. at 42,735–36 (“We are requiring existing sources to discontinue the use of PCE machines no later than December 21, 2020. In addition, our consideration of the relevant factors leads us to prohibit additional PCE-using machines from being installed.”).

111. See *supra* textual discussion associated with notes 36–40.

these perc exposures until the culmination of the fourteen-year phase-out. In New York State, at least, the level of interagency cooperation necessary to accomplish this work cannot be attained without first confronting the regulatory commons phenomenon.

Dry cleaner co-location is not a glamorous subject matter, and this issue may not be of pressing national import.¹¹² Still, New York State's experience with dry cleaner co-location provides insight into the regulatory commons dynamic and is therefore broadly applicable to regulatory action, or lack thereof, in the United States' federal system. The dry cleaner example provides a specific, programmatic basis by which to assess and expand upon some of the theoretical solutions that Buzbee has suggested may tighten the gaps evident in our fragmented regulatory regime. This example is also valuable because it suggests that regional or pseudo-local agencies, such as health departments, should continue to take on a greater role in statewide environmental regulatory initiatives. Health departments in New York State, for example, have already begun to move beyond their traditional "health" role and more into the realm of environmental compliance and enforcement.¹¹³ The remainder of this section will con-

112. The EPA has estimated that there are 1,007 dry cleaners co-located with residential facilities in New York State, whereas only 299 of such facilities occur nationally outside of New York State. See Memorandum from Mike Heaney, E. Research Group, Inc., to Rhea Jones, U.S. EPA, Cost of NESHAP Revisions for New Co-residential Perchloroethylene Dry Cleaning Facilities (Oct. 5, 2005), <http://www.epa.gov/air/drycleaningrule/pdfs/11-14-05background.pdf>.

113. See New York State Department of Health, New York State Local Health Departments, <http://www.health.state.ny.us/nysdoh/lhu/map.htm> (last visited Mar. 2, 2007). A survey of the web sites of local health departments in New York State reveals environmental protection programs that expand the health department's involvement in the environmental field well beyond what most perceive to be its traditional restaurant inspection role. These programs run the gamut from watershed and drinking water protection, to sewage pollution prevention, acid rain monitoring, solid waste management and inspection, petroleum bulk storage regulation, indoor and outdoor air monitoring, and bioterrorism response, just to name a few. See, e.g., Albany County Department of Health, http://www.albanycounty.com/departments/health/programs_services.asp?id=250 (last visited Mar. 2, 2007) (programs for public water supply protection, realty subdivision, toxic exposures and indoor air, and chemical emergencies); Broome County Health Department, <http://www.gobroomecounty.com/hd/HasHealthDept.php> (last visited Mar. 2, 2007) (programs to assist in implementation of groundwater protection ordinance, review and monitor hazardous waste site investigation and cleanup, and inspect solid waste facilities); Westchester County Department of Health, <http://www.westchestergov.com/health/HealthTopicsWebpageDirectory.htm> (last visited Mar. 2, 2007) (programs for natural water body pollution investigation, dry cleaner and auto body facility permitting and inspection, hazardous materials spill response, bioterrorism response, public water supply protection, indoor and outdoor air quality, and solid waste facility management).

sider the lessons that can be extracted from New York State's programmatic treatment of dry cleaner and residence co-location, in context with some of Buzbee's postulated solutions to the regulatory commons phenomenon.

The regulatory commons theory has been applied to a specific, project-based example in which the regulatory processes have a localized result.¹¹⁴ Buzbee states, however, that "[a] tougher question is how to facilitate *regionally needed infrastructure or social investments* when regulatory fragmentation would, at minimum, add costs to and discourage such ventures"¹¹⁵ Regulating dry cleaner co-location in New York State embodies just this "tougher question." Buzbee has proposed several answers to this question so that in regulatory settings in which multiple agencies are involved, social investments at the regional level will be assured notwithstanding each agency's incentive to protect its scarce resources. The merits of these suggestions are corroborated by observations that can be taken from the dry cleaner example.

Buzbee suggests three basic measures that, if implemented correctly, may temper the inaction characteristic of the regulatory commons phenomenon: 1) properly allocating responsibility among centralized and decentralized regulatory actors;¹¹⁶ 2) "creat[ing] . . . routine methods and venues to increase information about regulatory goals;"¹¹⁷ and 3) offering monetary incentives to overcome the information gathering costs faced by the agencies charged with implementing the regulatory program.¹¹⁸ These suggested measures are by no means revolutionary concepts, but much can be said about placing tried-and-true techniques into practice. An observer looking back on New York State's treatment of dry cleaner co-location over the past thirteen years bears witness to the effect that neglecting these measures can have on the efficacy of a regulatory initiative.

First, and critically, the proper allocation of authority and responsibility among agencies in a multi-agency regulatory regime must be a consideration of highest order when designing any regulatory program. Failure to allocate the agencies' roles at the program's inception sets the program up to fail. Furthermore, and equally critical, some surveillance mechanism must be instituted

114. See generally *Westway*, *supra* note 4.

115. See *id.* at 362–63 (emphasis added).

116. See *Regulatory Commons*, *supra* note 4, at 64.

117. *Id.* at 62.

118. *Id.* at 63.

to ensure that the agencies follow through with whatever allocation has been decided upon. A failure to institute such a mechanism is perhaps the key factor that has led to New York State's inability to effectively deal with the co-location issue.

Properly allocating authority and responsibility does not require any one agency to bear the brunt of managing the regulatory initiative. To the contrary, the apportionment of authority and responsibility should be spread among the multiple agencies to create a spectrum of involvement at the many levels of government that may be operative within one particular regulatory program.¹¹⁹ Similarly, leadership is not a one-dimensional concept, and the leadership taken by the different agencies may assume different forms.

There are three separate dimensions, or forms, of agency leadership capacity, and all dimensions must be accounted for. The most fundamental dimension of agency leadership capacity is the *jurisdictional* component. The jurisdictional aspect of agency leadership is somewhat akin to a court of law's subject matter jurisdiction. Jurisdictional leadership should be assumed in proportion to the agency's competence to regulate the subject matter underlying the regulatory program. Some agencies will be more competent with respect to the underlying subject matter than other agencies, and should therefore take a more prominent position in the regulatory program. Whether an agency has adequate jurisdictional competency to be included in a new program is a threshold consideration at the program's inception.

An agency's jurisdictional leadership ability, or competence, depends on two conditions—the agency must be legally enabled to address the subject matter at issue, and the agency must have adequate resources to do so. Detailed discussion of the first condition, legal enablement, is beyond the scope of this article. Suffice it

119. Buzbee also recognizes the importance of regulatory leadership, which he terms "primacy," but seems to limit its application to the notion of a single lead agency. See *Regulatory Commons*, *supra* note 4, at 22 ("If a social ill is juxtaposed against a fragmented or overlapping legal or political setting . . . the social ill is less likely to be addressed by regulatory action than in settings where a *particular institution* is viewed by all as having regulatory primacy.") (emphasis added). In the author's view, primacy is a term only somewhat synonymous with leadership. The term primacy connotes a scenario in which one agency is designated the principal boss, who issues orders to agencies lower on the regulatory ladder and to whom these lesser agencies report to and look to for decision-making guidance. On the other hand, the term leadership better incorporates the notion that several agencies, regardless of positional hierarchy, may be suited to take control of the different initiatives that exist in a regulatory program.

to say, law must be in effect that allows the agency to take any necessary action with respect to the new regulatory program.

The second condition, resource capacity, has quantitative and qualitative aspects. The quantitative component is the most conspicuous, being the agency's fiscal budget, the number of staff employed, and the allocation of staff according to program priority within the agency. Not surprisingly, money is the guidepost to gauging the quantitative component of an agency's resource capacity. Without money, an agency hires less staff and has difficulty justifying the commitment of existing personnel to support the launch of a new regulatory program. On the flipside, as an agency's fiscal budget increases, staffing goes up (in theory), and it is easier for the agency to commit to the success of a new program.

The qualitative component of an agency's resource capacity, though less conspicuous than the quantitative component, is also important. The agency's strengths in this sense are reflected by the training and skill-sets of the agency's staff. Money is critical to gauging this component of resource capacity as well. Budgetary constraints affect staff salary. Lower salary translates into applicants for agency position openings that are less qualified on both an educational and experience level. Money also determines whether an agency can ensure staff are equipped with current technology and are kept up to date and certified in modern inspection methodologies. In sum, then, if an agency has legal enablement but does not have sufficient money in its budget, or qualified staff, this agency will not meet the threshold of jurisdictional competence and cannot assume any leadership role in a new regulatory program. Furthermore, in the absence of financial assistance, local and regional agencies will most likely remain dispassionate about investing in the development of program initiatives that have originated at the state or federal level.

The second form of agency leadership capacity is termed *directional* leadership. This form can only be assumed by an authority that is capable of providing direction or oversight in a regulatory program. In substance, directional leadership most closely resembles Buzbee's agency primacy.¹²⁰ A key difference between directional leadership and Buzbee's agency primacy, as he is understood to use this term, is that directional leadership may

120. See *supra* note 119.

be assumed by multiple agencies with respect to discrete, separate aspects of the regulatory program.¹²¹

Furthermore, jurisdictional competence is not a prerequisite to an agency assuming directional leadership. The minimum requirement for assumption of the directional form of leadership is that the agency doing so has both the legal and practical power to direct. With this form, however, one agency must be set up as the agency perceived to be capable of guaranteeing the program's progress. This agency herdsman will guarantee progress either by implementing legal mandates or by offering monetary incentives. By doing so, a guided regulatory consensus is established to ensure that all players remain focused on the same program goals.

Coordination leadership is the final leadership form. This form relates to the agency or agencies that functionally serve as information bridges in the regulatory program. The information bridges connect the data that is generated at the front lines during program implementation to the policymakers that sculpt the program's ultimate direction. In a sense, then, a primary agency coordinator is the information middleman in the regulatory process. The information middleman's role is likely to be most significant under circumstances in which there is a large geographical gap between the policymakers and the object of regulation.

New York State's treatment of dry cleaner co-location showcases the program inefficacy that may result if regulatory leadership in its three dimensions is not effectively apportioned from the outset of a regulatory program, and if the apportionment is not duly followed. The leadership roles must be thoroughly considered and accounted for at the program's inception, before an agency's disincentive to act becomes firmly rooted. In the co-location example, there should have been little difficulty in determining which agencies were to assume jurisdictional, directional, and coordination leadership as the terms have been described above. This determination was seemingly accomplished under the 1997 memorandum that was distributed by the NYSDOH Division of Environmental Health Assessment to regional health departments.¹²²

According to the detailed plan of attack contained in the 1997 memorandum, local health departments were positioned to take the lead in the fieldwork component of a co-location program, with

121. See *id.*

122. See source cited *supra* note 102.

the NYSDOH presumably at the helm to provide support and coordination between the numerous county departments.¹²³ But, the language contained in this memorandum reveals that any anticipated efforts by the local health departments would be made on a voluntary and reactive basis only, and without meaningful financial or other resource assistance.¹²⁴ It is not surprising that in the absence of a concrete legal mandate or significant financial incentive, only one local health department proactively attacked the co-location problem.¹²⁵

Local health departments are unlikely to take initiative to develop and enforce their own co-location assessment programs even though they have the independent authority to do so.¹²⁶ Accordingly, the NYSDOH, as the natural lead agency in this matter relative to the local health departments, must adopt a firmer posture with the pre-existing program that is reflected by the 1997 memorandum. The NYSDOH must, in other words, assume directional leadership with respect to the local departments' efforts and must either impose a legal imperative or offer monetary incentive to spur these departments to action. One way for the NYSDOH to effectuate this leadership role is to codify its soft *perc* guideline recommendations into hard-and-fast, enforceable MCLs.¹²⁷ Doing so will signal that the local departments should prioritize co-location and work to eradicate this public health hazard.

The NYSDOH's failure to assume directional leadership in New York State's co-location efforts can be traced directly to the EPA's similar failure at the national level.¹²⁸ By inviting local authorities to shape the federal government's role, or to determine that no role should be played at all, the EPA signaled that co-location was not a federal priority. The invitation also implied that authorities at the state, local, and regional levels were free to ignore the issue altogether. Considering the little attention the EPA gave to co-location in the preamble to the dry cleaner NESHAP, the EPA's posture on this health hazard was arguably more counterproductive to the colorable call for local resolution of the issue than had nothing on topic been discussed at all. It is clear

123. *Id.*

124. *See id.*

125. *See infra* text accompanying note 132.

126. Many counties, especially in sparsely populated rural areas, may not have dry cleaner facilities that are co-located with apartments or other residential structures because there is enough land available to disfavor this zoning practice.

127. *See supra* textual discussion associated with notes 100–101.

128. *See supra* textual discussion associated with notes 64–68.

that if the federal government established any consensus on this issue, it was that co-location did not qualify as a public health concern warranting much attention. The EPA hoped that state or local authorities would take responsibility to eliminate co-location notwithstanding the federal government's non-committal posture. Unfortunately, this same non-committal posture appears to have infected the state, local, and regional agencies.

Even had authority and responsibility been properly allocated, and a clear consensus established, eliminating dry cleaner and residence co-location would still have been difficult without better modes of communication and information sharing between the involved agencies. A consistent theme running through New York State's dry cleaner co-location story is the communication breakdown between every thread in the jurisdictional lattice, starting with the federal government at the center of this lattice. Arguably, the federal government correctly entrusted more local authorities with the primary responsibility to implement any measures (whatever they turned out to be) to eliminate co-location.¹²⁹ But exactly how these local governments were to be apprised of the co-location issue's existence, let alone how to go about eliminating the health hazard, was clearly not a major forethought in the EPA's call for local assistance. The EPA's reference to the local authorities' expected role, without more, placed too much reliance on James Madison's theoretical notions of checks and balances in a federalist society.¹³⁰ No mechanisms to facilitate open lines of communication were developed so that information could be transferred between the EPA and the state, regional and local authorities.

This failure to establish a communication framework for information sharing was also evident at the New York State level. Like the federal NESHAP, NYSDEC part 232 failed to create or suggest a basis for lines of communication between the state, regional, and local authorities.¹³¹ The 1997 memorandum distributed by the NYSDOH Division of Environmental Health

129. See *supra* textual discussion associated with notes 92–95 and text accompanying notes 92 & 94.

130. See *supra* textual discussion associated with notes 1, 2, & 3.

131. For example, during the Westchester County Department of Health's 2005 annual dry cleaning inspection program, the Building Inspector for the Village of Pelham, N.Y., stated that he had never been informed that dry cleaner co-location posed any particular public health concerns. Telephone Interview with Leonard M. Russo, Bldg. Inspector & Code Enforcement Official, Vill. of Pelham, N.Y., in Westchester County, N.Y. (Aug. 5, 2005).

Assessment indicates that the NYSDEC and the NYSDOH had noble intentions to tackle the problem. However, with Westchester County, N.Y., being the sole exception,¹³² no systematic state-wide efforts were ever taken, at the regional or local level, to even begin the individualized co-located facility assessments recommended by the federal NESHAP.

IV. CONCLUSION

The story of dry cleaner co-location does not encompass a glamorous subject matter, nor does the subject matter necessarily have nationwide appeal. But the significance of this story transcends its subject matter by providing deep insight into the regulatory commons phenomenon, which is unquestionably a matter of broad application in the United States' federal system. Looking back through the pages of the co-location story, there are periodic notations to suggest that the federal, state, or local governments should have prohibited co-location long before the very recent NESHAP amendments took a significant step toward this prohibition. It should not have taken thirteen years to take real action to resolve this issue. Hindsight, of course, provides the clearest of perspectives. In New York State, several agencies have been participants in a complicated and, for the most part, admirable regulatory initiative to address dry cleaner and residence co-location. Yet despite this attention, and despite the recent NESHAP amendments, perc exposure presented by the co-location scenario will be a continued risk until the last co-located facilities are phased out in 2020.¹³³ Thus, there is still ample opportunity for New York State to evaluate the program critiques that have been presented in this article.

132. *See supra* note 80. As of 2005, the Westchester County Department of Health was the only county in the State to conduct annual dry cleaner compliance inspections that incorporated assessment of dry cleaner facility impact on co-located residences, by measuring perc indoor air concentrations in these residences via infrared spectroscopy and correlating the results with dry cleaner facility conditions. However, no attempt was made to encourage local zoning authorities to place limitations on, or altogether prohibit, dry cleaner co-location in mixed-use districts. *Id.*

133. *See supra* text accompanying note 110.