Florida State University Journal of Land Use and Environmental Law

Volume 2
Number 2 *Fall 1986*

Article 7

April 2018

Case Note: Constitutional Questions in Environmental Regulation: EPA's Use of Aerial Photography Does Not Constitute a Fourth Amendment Search

Mark Massey

CASE NOTE

CONSTITUTIONAL QUESTIONS IN ENVIRONMENTAL REGULATION: EPA'S USE OF AERIAL PHOTOGRAPHY DOES NOT CONSTITUTE A FOURTH AMENDMENT SEARCH (*Dow Chemical Co. v. United States*, 106 S. Ct 1819 (1986))

On May 19, 1986, the United States Supreme Court held that the Environmental Protection Agency (EPA) may, without a warrant, use sophisticated aerial photography in the course of an emissions investigation.[1] In recent years, aerial photography has increasingly become an area of controversy for EPA. Some companies have claimed that EPA's use of unwarranted and unannounced surveillance violates those companies' Fourth Amendment rights.[2] Also brought into question is whether the Clean Air Act, authorizing EPA to investigate industrial emissions,[3] contemplates this type of investigatory tool.

The decision in *Dow Chemical Co. v. United States*[4] significantly clarifies what EPA is allowed to do, both statutorily and constitutionally. The issues were resolved largely in EPA's favor, but the true reach of the decision remains to be seen. The purpose of this note is to review the factual background leading up to the Supreme Court's decision; briefly examine EPA's investigatory authority under the Clean Air Act; and explore the constitutional implications which may arise from the case.

I. THE DECISION

In early 1978, EPA officials made an on-site inspection of Dow Chemical Company's 2,000-acre chemical manufacturing plant in Midland, Michigan.[5] The inspection was part of an on-going investigation to determine whether emissions from two of the plant's powerhouses violated federal air-quality standards.[6] Shortly after

---

1. Dow Chemical Co. v. United States, 106 S. Ct 1819, 1827 (1986).
2. U.S. CONST. amend. IV. EPA, because it uses aerial observation, was one of many agencies affected by a recent trend among courts to hold that aerial observation is not a "search," and the ensuing objections to this trend by those affected. *See* Recent Development, *Warrantless Aerial Surveillance: A Constitutional Analysis*, 35 VAND. L. REV. 409, 410 (1982).
3. 42 U.S.C. § 7414(a) (1982). *See infra* notes 16-17 and accompanying text.
4. 106 S. Ct 1819.
5. *Id.* at 1822.
6. *Id.*

the inspection, EPA officials asked for schematic drawings of the powerhouses. Dow complied with this request, but refused to allow a second EPA inspection in which photographs were to be taken.[7]

The EPA informed Dow that it would consider seeking a warrant to enter and photograph the plant, but later decided against this tactic.[8] Instead, EPA hired a private contractor to fly over Dow's plant and take photographs using a sophisticated aerial mapping camera.[9] Dow, uninformed of EPA's plans, was dismayed to learn that this had taken place. It brought suit in United States District Court seeking declaratory and injunctive relief.[10] Dow claimed that EPA had acted beyond its statutory authority, and had violated Dow's Fourth Amendment rights by conducting a warrantless search.[11] The district court agreed with Dow on both issues, and granted its motion for partial summary judgment.[12]

The United States Court of Appeals for the Sixth Circuit, however, reversed this decision.[13] The circuit court held (1) that EPA's actions did not constitute a Fourth Amendment search, and (2) that EPA had not acted beyond its statutory authority by using aerial photography.[14] The United States Supreme Court granted certiorari and affirmed the circuit court's decision.[15]

II. EPA'S STATUTORY INVESTIGATIVE AUTHORITY

Section 114(a) of the Clean Air Act (Act) confers upon EPA the authority to investigate, by inspection or observation, possible violations of federal air-quality standards.[16] The Act authorizes EPA officials to enter the premises of a stationary emission source upon

---

7. *Id.*

8. *Id.* It is not clear exactly when or why EPA did not seek a warrant. The dissent referred to this decision as "inexplicable." Dow Chemical Co. v. United States, 106 S. Ct. 1819, 1829 (Powell, J., dissenting).

9. 106 S. Ct. at 1822. The District Court noted that EPA gave detailed instructions to the private contractor on how the photographs were to be taken. Approximately 75 photographs were taken. Dow Chemical Co. v. United States, 536 F. Supp. 1355, 1357 (E.D. Mich. 1982).

10. 536 F. Supp. 1355.

11. *Id.* at 1356. Whether EPA's conduct in fact amounted to a search at all became the central, and ultimately the deciding, issue in the case. See *infra* section III.

12. *Id.* at 1375.

13. Dow Chemical Co. v. United States, 749 F.2d 307, 315 (6th Cir. 1984).

14. *Id.* at 309.

15. 106 S. Ct. at 1827.

16. 42 U.S.C. § 7414(a)(2). The Clean Air Act, according to the Court, gives EPA a general investigatory power, with the particular methods of investigation to be left to EPA's discretion. 106 S.Ct. at 1824.

presentation of proper credentials.[17] It was pursuant to this authority that EPA was investigating the emissions from Dow's coal-burning powerhouses.

Dow argued that the authority granted by section 114(a) is limited, and does not include unannounced aerial observation.[18] Any time an emissions inspection is conducted, it is either through the cooperation of the owner, or it is done with a warrant.[19] Therefore, Dow asserted, EPA has no authority to "inspect," through aerial photography, Dow's plant without first obtaining Dow's permission. The district court agreed with this assertion, and stated that Congress was speaking strictly of land-based examinations when drafting the right-of-entry language.[20] The Act did not contemplate the use of unannounced aerial photography.[21]

But the Court of Appeals pointed out, and the Supreme Court agreed, that even though the statute does not explicitly authorize aerial photography, it certainly does not forbid EPA from using it.[22] The Supreme Court added that since the purpose of the Act was to confer upon EPA a general power to investigate, it follows that EPA may use any reasonable method which it finds useful.[23] The Court reasoned that EPA does not need express statutory authority to use a method of observation generally available to the public.[24]

The four dissenters in the case[25] joined the part of the Court's opinion stating that EPA was within its statutory authority. The Court thus indicated a consensus that EPA has fairly wide discretion over the particular investigatory tools it may use. This idea appears to be in keeping with the purpose of the Act,[26] but may leave EPA with some tough decisions to make. EPA sometimes has to judge how far it may go before its actions begin to collide with the reasonable constitutional expectations of a business. It is these

17. 42 U.S.C. § 7414(a)(2).
18. 106 S. Ct. at 1823.
19. 42 U.S.C. § 7414(a)(2)(A).
20. 536 F. Supp. at 1374-75.
21. *Id.*
22. 749 F.2d at 315.
23. 106 S. Ct. at 1824.
24. *Id.*
25. Justices Powell, Brennan, Marshall, and Blackmun concurred only with the holding that EPA was within its statutory authority. They sharply dissented on the constitutional issues.
26. 1970 U.S. CODE CONG. & ADMIN. NEWS 5356, 5360, 5365. The Act grew out of a great concern over increasing pollution and the drafters wanted to make EPA as effective a tool as possible in acting as a check on that pollution.

constitutional expectations which are the central point of controversy in the *Dow* case. EPA may find the case useful for future guidance, although only in a very limited and non-specific way.

III. Dow's Claim That EPA's Action was a Violation of Constitutional Rights

A. *Constitutional Background and the District Court's Decision*

Dow claimed that by employing aerial observation, EPA had conducted a warrantless search, thereby violating Dow's expectation of privacy against such searches.[27] Although no physical entry took place, the nature of the photography was considered intrusive enough by the district court to have amounted to a search.[28] The district court reasoned that since the "search" was warrantless and unannounced, it violated Dow's Fourth Amendment rights.[29]

It is fairly well-established that searches conducted by administrative agencies require a warrant.[30] Accordingly, most of the case law on administrative searches involves whether the search was reasonable, and this is often based on whether there was a warrant.[31] Prior to 1967, some confusion still existed as to whether administrative searches required a warrant the same way searches do in criminal cases.[32] That year, however, the Supreme Court in *Camara v. Municipal Court*[33] held that administrative searches do require a warrant, because the same expectations of privacy are present in a business as are in a home.[34] Subject to very few excep-

---

27. 106 S. Ct. at 1824.

28. 536 F. Supp. at 1358. Dow and EPA stipulated at the district court level that the conduct was in fact a search. EPA's argument was that even though it was a search, it did not require a warrant. The Supreme Court ultimately held that the conduct did *not* amount to a search. The Court intimated, however, that even if it was a search, it would not require a warrant, because Dow could not reasonably expect EPA to obtain aerial photographs of its plant. The import of this intimation will be interesting to see, since the Court's opinion seems to be based entirely on the finding that no search took place.

29. *Id.*

30. *See* Camara v. Municipal Court, 387 U.S. 523 (1967); See v. City of Seattle, 387 U.S. 541 (1967).

31. *See* Marshall v. Barlow's, Inc., 436 U.S. 307 (1978); 387 U.S. 523 at 534.

32. *See* Frank v. Maryland, 359 U.S. 360 (1959).

33. 387 U.S. 523.

34. *Id.* at 534. In *Camara*, the petitioner refused to allow warrantless inspections by city health inspectors of the ground-floor leasehold he was illegally using as a residence. The Court held that "administrative searches of the kind at issue here are significant intrusions upon the interests protected by the Fourth Amendment, that such searches when authorized and conducted without a warrant procedure lack the traditional safeguards which the Fourth Amendment guarantees to individuals . . ." *Id.*

tions, therefore, almost any search conducted without a warrant would be considered unreasonable.[35]

Over the next several years, the Court acknowledged that some situations would arise where warrantless administrative searches might be necessary.[36] In 1970, in *Colonnade Catering Co. v. United States*,[37] the Court recognized that in traditionally heavily regulated industries, such as liquor sales, warrantless searches may be considered reasonable. And in 1972, in *United States v. Biswell*,[38] the Court condoned warrantless regulatory inspections if there is an "urgent federal interest" at stake.[39] The Court was careful to condition this exception, however, on (1) express statutory approval of such inspections, and (2) that the possibility of abuse and the threat to privacy are minimal.[40]

In both cases, the Court recognized that in industries such as liquor (*Colonnade*) and firearms (*Biswell*), there is a strong federal interest in being able to act quickly and with some flexibility. Stringent warrant requirements, therefore, might hamper the investigatory efforts of some agencies.[41] The Court also recognized that businessmen who participate in such industries do so with the knowledge that they will be subject to heavy regulation.[42] They should not be entitled to the same expectation of privacy as other, less supervised businesses.[43] Thus, the Fourth Amendment's "reasonableness" requirement[44] will vary depending on the industry and the agency, and their historical relationship.[45] Whether the

---

35. The *Camara* Court did acknowledge that administrative warrant requests would be held to a lower standard of probable cause than in criminal cases. *Id.* at 538.

36. *See, e.g.*, Donovan v. Dewey, 452 U.S. 594 (1981); United States v. Biswell, 406 U.S. 311 (1972); Colonnade Catering Corp. v. United States, 397 U.S. 72 (1970).

37. 397 U.S. 72 (1970).

38. 406 U.S. 311 (1972).

39. *Id.* at 317.

40. *Id.*

41. *Id.* at 316. The Court said of the firearms trade:

> Here, if inspection is to be effective and serve as a deterrent, unannounced, even frequent inspections are essential. In this context, the prerequisite of a warrant could easily frustrate inspection; and if the necessary flexibility as to time, scope and frequency is to be preserved, the protection afforded by a warrant would be negligible.

Id.

42. *Id.*

43. *Id.*

44. *See* Katz v. United States, 389 U.S. 347 (1967), *infra* notes 63-76 and accompanying text.

45. In both *Colonnade* and *Biswell*, the Court traced the history of regulation in the respective businesses, and found that the operators of such businesses "could not help but be aware" that they would be subject to heavy regulation.

Colonnade-Biswell exception should apply to EPA was an issue the district court sought to resolve.

The Supreme Court did not extend this exception to the Secretary of Labor under the Occupational Safety and Health Act (OSHA).[46] In *Marshall v. Barlow's, Inc.*,[47] a 1978 case which Dow claimed should be controlling, the Court held that the nature and extent of OSHA inspections were not of such a nature as to justify a system of warrantless searches.[48] Moreover, a warrant requirement would not impose any significant burden on the inspectors, and would not make the inspections any less effective.[49] The Court reasoned that OSHA's specific enforcement needs were not so great as to outweigh the privacy expectations of the business owners involved.[50] The expectations involved here, according to the court, were justifiably more substantial than in *Colonnade* and *Biswell*.[51]

Finally, in 1981 the Court ruled that some inspection programs, if applied with regularity and frequency, may not require a search warrant.[52] In *Donovan v. Dewey*,[53] the Court upheld a warrantless inspection program under the Federal Mine Safety and Health Act of 1977.[54] The "inspection program, in terms of certainty and regularity of its application, provided a constitutionally adequate substitute for a warrant."[55] Moreover, the "federal regulatory presence is sufficiently comprehensive and defined that owners of commercial property cannot help but be aware that their property will be subject to periodic inspections undertaken for specific purposes."[56]

The district court found that the Clean Air Act, although authorizing rights of entry, was not a legislative scheme which encompassed warrantless searches.[57] The interests of EPA in regulat-

---

46. Occupational Safety and Health Act of 1970, 29 U.S.C. § 657 (1982).

47. 436 U.S. 305 (1978).

48. *Id.* at 324.

49. *Id.* at 316.

50. *Id.* at 317.

51. *Id.* at 313. The Court again referred to the regulatory history of the industry, *supra* note 45, and found no history of "pervasive" regulation. Therefore, the owners were entitled to higher expectations of privacy than in other, more closely regulated businesses.

52. *See* Donovan v. Dewey, 452 U.S. 594 (1981). The *Dewey* case is indicative of the evolving nature of the definition of "history of regulation." It was now refined to include "regularity and frequency," apparently even if this was not always the case.

53. 452 U.S. 594 (1981).

54. 30 U.S.C. §§ 801 et seq.

55. 452 U.S. at 603.

56. *Id.* at 600.

57. 536 F. Supp. at 1373-75.

ing emission sources are not of such a nature as to intrude on the privacy interests of Dow. The key to the district court's decision was the finding that EPA, by employing aerial photography, had conducted a warrantless search of Dow's plant. Since the regulatory scheme under which EPA acted did not meet the "sufficiently comprehensive and defined" criteria of *Dewey*, the warrantless search was an unreasonable violation of Dow's Fourth Amendment rights.[58]

B. The Occurrence of a Search: Threshold Requirement of Fourth Amendment Analysis

Neither the circuit court nor the Supreme Court disputed that EPA was subject to the warrant requirement when it was conducting searches. But rather than concentrating on the administrative case law dealing with the reasonableness of searches, the higher courts took a step back to see if the Fourth Amendment should be involved in the case at all. A threshold requirement of any Fourth Amendment analysis, the courts reasoned, is whether a search has actually occurred.[59] The district court found that a search had occurred, and quickly went on to the next step of the analysis, determining whether the search was reasonable.[60]

The circuit court, however, found that the district court had acted too quickly in determining EPA's actions constituted a search.[61] This was the issue that needed to be resolved first, and this, according to the circuit court, is where the district court erred.[62] By framing the issues in this new manner, the circuit court swept aside the rationale of the district court and changed the analysis completely.

The circuit court for its analysis relied on a landmark 1967 case, *Katz v. United States*.[63] Prior to *Katz*, the Supreme Court had interpreted the Fourth Amendment as applying primarily to property rights.[64] For a Fourth Amendment search to occur, there had to be an actual "trespass," or physical entry, into some property of

---

58. *Id.* at 1369.
59. 749 F.2d at 311.
60. 536 F. Supp. at 1359.
61. 749 F.2d at 312.
62. *Id.*
63. 389 U.S. 347 (1967).
64. *See* Goldman v. United States, 316 U.S. 129 (1942); Olmstead v. United States, 277 U.S. 438 (1928). Both cases were expressly rejected in *Katz*: "the 'trespass' doctrine . . . can no longer be regarded as controlling." 389 U.S. at 353.

the accused.[65] *Katz*, however, stated that a search may occur even without a physical entry into property. The Court explained, "once it is recognized that the Fourth Amendment protects people and not simply 'areas' against unreasonable searches and seizures, it becomes clear that the reach of that Amendment cannot turn upon the presence or absence of a physical intrusion into any given enclosure."[66]

What is important, the *Katz* court said, is that the accused may have a constitutional desire to keep something private, and may reasonably expect privacy, and expect to be free from governmental intrusion.[67] In *Katz*, the "something" which the accused desired to keep private was a telephone conversation in a public phone booth.[68] The government, by electronically listening to and recording the conversation, had conducted a "search."[69] The government, the court reasoned, had "violated the privacy upon which [the accused] justifiably relied while using the telephone booth."[70]

It made no difference to the Court that there was no physical intrusion into the telephone booth, for there was still an intrusion into the accused's reasonably expected privacy.[71] Neither did it impress the Court that the same search, under the same conditions, would have been constitutional if the government had first asked for a warrant.[72] Fourth Amendment protection is to be had by a neutral predetermination by a magistrate, the Court said, not from the unfettered discretion of the police.[73]

The *Katz* court, just as the *Dow* court, noted that none of the exceptions to the warrant requirement could apply.[74] Therefore, two questions needed to be answered. First, did a search take place, and if so, was it constitutional.[75] To answer the first ques-

---

65. *See Olmstead*, at 457, 464, 466.
66. 389 U.S. at 353.
67. *Id.*
68. *Id.* at 352.
69. *Id.* at 353.
70. *Id.*
71. *Id.* at 352.

> No less than an individual in a business office, in a friend's apartment, or in a taxicab, a person in a telephone booth may rely upon the protection of the Fourth Amendment. One who occupies it, shuts the door behind him, and pays the toll that permits him to place a call is surely entitled to assume that the words he utters into the mouthpiece will not be broadcast to the world.

Id.

72. *Id.* at 356.
73. *Id.* at 358-59.
74. *Id.* at 357.
75. *Id.* at 353-54.

tion, of whether a search had occurred, the *Katz* court relied on a two-prong test. First, has the person claiming Fourth Amendment protection proven that he had an actual or subjective expectation of privacy in the area intruded upon by the government; and second, is this subjective expectation one which society would recognize as legitimate.[76]

The circuit court in the *Dow* case used the same analysis and employed *Katz*'s two-prong test to determine whether a search had occurred. The court found that Dow did have an actual expectation of privacy in certain parts of its plant, and had manifested an intent to be free from certain kinds of intrusions.[77] This intent appeared to be limited, however, to an expectation of freedom from ground-level intrusions only.[78]

Dow had taken extensive measures to secure its plant and the insides of its buildings against anyone who might intrude upon them from the ground.[79] Dow had not, however, taken such precautions against aerial intrusions, even though the plant was within the landing and take-off patterns of a nearby airport.[80] Dow argued that to be free from aerial intrusions, it would have to build a dome over its entire plant, which of course was inconceivable.[81] The court reasoned, however, that short of building a dome, Dow could have taken lesser, more feasible precautions against the kind of aerial observation at issue.[82] Instead, the court found that Dow had taken no precautions at all.[83] Therefore, in light of all the facts and circumstances, Dow had manifested no reasonable expectation to be free from aerial spectators.[84]

The actions of EPA and the private contractor were legal actions that could have been taken by anyone. The circuit court stated that a person has no right to expect the government to obtain a

---

76. *See* 749 F.2d at 311.
77. 749 F.2d at 312.
78. *Id.*
79. *Id.*
80. *Id.* at 313.
81. *Id.* at 312.
82. *Id.*
83. *Id.* The court reasoned that if Dow's expectation of privacy on the ground should be measured by actions it took to prevent ground intrusion, then its expectation of privacy from the air should be measured by actions it took to prevent air intrusion.
84. *Id.* Dow did in fact have security measures to prevent aerial photography by competitors, with the aim of protecting trade secrets. The Court, however, said that this should have no application to EPA because there is no danger of trade secret dissemination, and even if there were such a danger, the trade secret laws will adequately protect Dow. The danger is not of a constitutional dimension.

warrant to observe what is freely observable by the general public.[85] The Supreme Court elaborated on this idea, and noted that this is even more true of owners of commercial property.[86] If Dow had wanted to protect its outside areas from public aerial observation, it could have. Because it did not, it cannot now claim to have had an interest in doing so.[87]

C. *Curtilage versus Open Fields, and the Reasonableness of Dow's Expectations*

The Supreme Court concurred fully with the Sixth Circuit's findings, and agreed that no impermissible search had taken place.[88] EPA had therefore not infringed upon any reasonable expectation of privacy which Dow had claimed or could now claim.[89] Moreover, the Supreme Court agreed with and elaborated upon the circuit court's assertion that, even if Dow did have an expectation of privacy from the air, such an expectation was unreasonable. The plant's location (under airport landing patterns), size (2000 acres), and layout (multiple buildings) make it highly unreasonable for Dow to expect a great deal of privacy in the outside of its buildings and in the spaces between the buildings.[90] The circuit court held that the common-law "curtilage doctrine" did not apply to this scenario. It found no compelling reasons or case law to justify extending this doctrine's protection to an area which resembled an "open field."[91]

The Supreme Court agreed, and traced the curtilage and open-field doctrines as they evolved together.[92] The curtilage doctrine is a common-law notion,[93] still very active today, that states a person's privacy interest in his home may extend to the areas immedi-

85. 749 F.2d at 313.

86. 106 S. Ct. at 1826. "The expectation of privacy that the owner of commercial property enjoys in such property differs significantly from the sanctity accorded an individual's home; the Government has greater latitude to conduct warrantless inspections of commercial property." *Id.* (quoting Donovan v. Dewey, 432 U.S. at 2537-38).

87. *Id.*

88. 106 S. Ct. at 1827.

89. *Id.* at 1827 n.5.

90. *Id.* at 1825-26.

91. 749 F.2d at 314.

92. 106 S. Ct. 1825-26.

93. The doctrine in the case law goes as far back as 1886, when the Supreme Court decided Boyd v. United States, 116 U.S. 616 (1886). It was based on the strong privacy interest people have in the space inside of their own homes, a deeply rooted idea in American history.

ately surrounding the home.[94] It is based on the idea that people's expectations of privacy from government interference are highest when people are conducting activities in their homes.[95] It was quickly recognized by the Supreme Court that many of these activities will be carried on outside of the house and in the immediately surrounding areas.[96] Such activities are deserving of the same protection as if they had been carried on inside the house.[97]

Additionally, history has shown that this extension of the privacy interest is one that society is willing to accept as legitimate. This is an important factor, because if an expectation is not deemed by society as legitimate, it has a much lesser chance of being constitutionally protected.[98]

Although primarily based on the concepts of intimacy and privacy associated with the home,[99] the curtilage doctrine can be extended to commercial property.[100] The Court acknowledged that "a business establishment or an industrial or commercial facility enjoys certain protections under the Fourth Amendment."[101] However, the Supreme Court rejected Dow's argument that its entire plant constituted an "industrial curtilage," and ruled that EPA aerial photographing of the plant did not intrude upon an expectation of privacy based on curtilage.[102]

Ever since *Hester v. United States*,[103] the Court noted, there has been a distinction between activities carried on in the curtilage area of a home or business, and those carried on in the open areas

---

94. Oliver v. United States, 466 U.S. 170 (1984); Hester v. United States, 265 U.S. 57 (1924). *Oliver* involved police entry into the respondent's field on a tip that respondent was growing marijuana in the field. The police went past a locked gate with a "No Trespassing" sign posted on it, but with a footpath around one side. The Court did not consider the field to be a curtilage, but rather an open field which respondent could not reasonably expect to remain completely private. The field was not, therefore, protected by the Fourth Amendment. It was not an "area immediately surrounding the home," such as a back yard. Back yards are probably the best example of what the Court means by "curtilage."

95. 106 S. Ct. at 1825.

96. *Id.*

97. *Id.*

98. *See supra* note 76. This is the second prong of the *Katz* test. Even though society recognizes, according to the Court, "industrial curtilage" as legitimate, the Court limited Dow's curtilage to the interior of its covered buildings. To have a great expectation of privacy in the outside parts of its plant, the Court said, was unreasonable.

99. 106 S. Ct. at 1825.

100. *Id.* (citing Marshall v. Barlow's, Inc., 436 U.S. 307 (1978) and See v. City of Seattle, 387 U.S. 541 (1967)).

101. *Id.*

102. *Id.*

103. 265 U.S. 57 (1924).

beyond that curtilage.[104] This idea led to the "open fields" doctrine as an exception to the curtilage rule. When the area in question is open and outdoors, and not immediately within the curtilage area, the legitimacy of any privacy expectation in that area is significantly diminished.[105] "[O]pen fields do not provide the setting for those intimate activities that the [Fourth] Amendment is intended to shelter from governmental interference or surveillance."[106]

The Supreme Court noted that Dow's plant was not exactly analogous to an open field.[107] However, for the narrow purposes of aerial observation, the open areas of the plant were more like open fields than like curtilage.[108] Moreover, "[t]he intimate activities associated with family privacy and the home and its curtilage simply do not reach the outdoor areas or spaces between structures and buildings of a manufacturing plant"[109]

The Court did not rely solely on the finding that Dow's plant is more analogous to an open field than to curtilage. Dow had taken extensive measures to protect its "curtilage" from ground intrusion, and the Court acknowledged that any physical entry into an enclosed area by EPA would raise "significantly different questions."[110] By sharply narrowing the issue in this way, the Court found that while Dow may have a legitimate expectation of freedom from physical entry into its plant, including the exterior spaces in question, it may not have such an expectation with respect to aerial observation of those outside spaces.[111] It simply is

---

104. 106 S. Ct. at 1825.

105. The circuit court stated, "[W]hen the area observed is like an open field, an inspection which would otherwise be a search becomes a non-search for Fourth Amendment purposes." 749 F.2d at 313.

106. 106 S. Ct. 1825 (citing *Oliver*, 466 U.S. at 179).

107. "Admittedly, Dow's enclosed plant complex, like the area in *Oliver*, does not fall precisely within the open fields doctrine. The area at issue here can perhaps be seen as falling somewhere between 'open fields' and curtilage, but lacking some of the critical characteristics of both." 106 S. Ct. at 1825-26.

108. Note that the Court sharply narrowed the issue and stressed that there had been no physical entry. This was raised by the dissent, section IV *infra*, who charged the majority with reinstating the "physical trespass" doctrine which had been abolished in *Katz*. *See* 106 S. Ct. at 1825-26; 749 F.2d at 312-14.

109. 106 S. Ct. at 1825.

110. 106 S. Ct. at 1826.

111. 106 S. Ct. at 1826-27. The majority, perhaps in anticipation of the dissent's criticism, attempted to use the difference between physical entry and aerial observation to demonstrate the unreasonableness of Dow's expectations, not the unintrusiveness of the conduct. The dissent was extremely concerned that the majority was basing its opinion entirely on the unintrusiveness of the conduct, regardless of the reasonableness of Dow's expectations.

not reasonable, the Court asserted, for Dow to consider such areas a curtilage for the purposes of aerial observation.[112]

IV. The Dissent

The four dissenters in the case[113] disagreed sharply with the majority's assertion that Dow had no reasonable expectation of privacy.[114] Dow had taken extensive measures, the dissenting opinion stated, to protect its plant from ground-level as well as aerial observations.[115] Dow had manifested a reasonable expectation of privacy, which society recognized as legitimate, and EPA intruded on that expectation by taking aerial photographs.[116]

Justice Powell writing for the dissent stated the majority had misapplied the *Katz* standard by limiting Dow's protection to actual physical entry.[117] Powell characterized the majority as holding that no search took place simply "because it was not accompanied by a physical trespass and because the equipment used was not the most highly sophisticated form of technology available to the Government."[118]

Katz, according to Powell, calls for rejection of the "physical trespass" standard.[119] Moreover, the protection of privacy interests becomes increasingly important as technological advances are made in an area such as surveillance.[120] As this technology expands, the possibility of unconstitutional intrusion without physical entry or even proximity to the area becomes greater.[121] This is what the *Katz* standard was designed to protect, Powell said, and this is precisely what the majority ignores.[122]

---

112. *Id.* at 1827. "[I]t is open to the view and observation of persons in aircraft lawfully in the public airspace immediately above or sufficiently near the area for the reach of cameras." *Id.* The dissent harshly criticized the majority for not differentiating between casual observation and sophisticated, purposeful picture-taking. *Id.*

113. Justice Powell, joined by Justices Brennan, Marshall, and Blackmun. *See supra* note 25.

114. 106 S. Ct. at 1827.

115. "Dow appears to have done everything commercially feasible to protect the confidential business information and property located within the borders of the facility." *Id.* at 1828.

116. 106 S. Ct. at 1828.

117. 106 S. Ct. at 1831.

118. *Id.* at 1827.

119. *Id.* at 1831.

120. *Id.* at 1833 n.1.

121. *Id.* at 1833.

122. *Id.*

In *California v. Ciraolo*,[123] the companion case to *Dow*, the Court upheld aerial observation by the police of a person's back yard in which marijuana was growing.[124] The yard was enclosed by a six-foot outer fence and a ten-foot inner fence completely obstructing any ground-level observation and manifesting an expectation of privacy against such observation.[125] The rationale in that case was largely the same as in *Dow*,[126] with emphasis on the finding that anyone flying over the yard could easily have made the same observations as the police.[127] Therefore, the purposeful police observation[128] was no more an intrusion on Ciraolo's privacy than a casual, accidental observation by a member of the public.[129]

The four dissenters in *Dow* also dissented in *Ciraolo*, but attacked the rationale much more strongly in the *Dow* case. In *Dow*, Justice Powell strongly emphasized the sophisticated nature of the photography used by EPA. Powell deeply criticized the majority's assertion that any member of the public flying over Dow's plant could have seen the same things EPA observed.[130] Powell agreed with the district court's findings that the photographs revealed intimate details that would be impossible to discern through casual observation or without highly sophisticated and expensive equipment.[131] The photographs contained the kind of details that Dow, or anyone, would have a right to expect to keep private and free form "seizure"[132] by the government without a warrant.[133]

---

123. 106 S. Ct. 1809 (1986). *Ciraolo* and *Dow* were decided on the same day, and by the same majority.

124. *Id.* at 1813.

125. *Id.* at 1810.

126. *See supra* section III.

127. In an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet. The Fourth Amendment simply does not require the police traveling in the public airways at this altitude to obtain a warrant in order to observe what is visible to the naked eye.
106 S. Ct. at 1813.

128. The police had received an anonymous tip that Ciraolo was growing marijuana in his back yard. The flyover was in response to this tip. *Id.* at 1810.

129. *Id.* at 1813.

130. 106 S. Ct. at 1832. Powell stated that, even if this position had merit in *Ciraolo*, it doesn't apply to *Dow*, because "it is not the case that any member of the public flying in the airspace who cared to glance down could have obtained the information captured by the aerial photography of Dow's facility." *Id.*

131. *Id.* at 1832-33.

132. Whether the taking of photographs amounts to a "seizure" of Dow's property was not an issue in the Supreme Court case.

133. 106 S. Ct. at 1834. "The photographs captured highly confidential information that Dow had taken reasonable and objective steps to preserve as private." *Id.*

For the dissent, the fact that the camera used by EPA was a $22,000.00 mapping camera, the "finest in the field," was pivotal.[134] The camera was capable of taking photographs which could be enlarged to a scale of one inch equals twenty feet, without loss of clarity.[135] Additionally, the photographing technique involved stereoscopic examination, which permits depth perception, and the enlarged photographs under magnification revealed power lines as small as one-half inch in diameter.[136] "The camera saw a great deal more than the human eye could ever see," according to the dissent.[137]

The dissent was alarmed at the majority's allowance of this type of surveillance without a warrant. Powell criticized the majority as basing its decision on an arbitrary differentiation of one means of surveillance from another. "The Court holds that Dow had no reasonable expectation of privacy from surveillance accomplished by means of a $22,000.00 mapping camera, but that it does have a reasonable expectation of privacy from satellite surveillance and photography. This type of distinction is heretofore wholly unknown in Fourth Amendment jurisprudence."[138] Justice Powell was concerned that the case signalled "a significant retreat from the rationale of prior Fourth Amendment decisions," and a "drastic reduction in the Fourth Amendment protections previously afforded to private commercial premises. . . ."[139] This is an especially dangerous game to play, he asserted, in the face of rapidly increasing technology, particularly in the area of surveillance.[140]

Dow had done everything it could reasonably have done, Powell reasoned, to protect its plant from unauthorized observation. Such a manifested expectation of privacy is precisely the type of interest

---

134. *Id.* at 1833 n.12. The dissent agreed with the district court that an appreciation of the sophisticated nature of the camera is essential to an understanding of the case. *Id.* at 1833.

135. *Id.* at 1829.

136. *Id.* The majority responded to this assertion by stating in a footnote:

> The partial dissent emphasized Dow's claim that under magnification power lines as small as ½-inch in diameter can be observed. . . . But a glance at the photographs in issue shows that those power lines are observable only because of their stark contrast with the snow-white background. No objects as small as ½-inch diameter such as a class ring, for example, are recognizable, nor are there any identifiable human faces or secret documents captured in such a fashion as to implicate more serious privacy concerns.

106 S. Ct. at 1827 n.5.

137. *Id.* at 1823-33 (quoting 536 F. Supp. at 1367).

138. *Id.* at 1833 n.12.

139. *Id.* at 1830.

140. *Id.*

to which the Court has extended Fourth Amendment protection.[141] The dissenters could not readily understand why this protection should not apply to the "unwarranted intrusion" by EPA in this case.

V. ANALYSIS

A. *The Constitutional Question*

The Supreme Court's decision in *Dow Chemical* affords EPA judicial approval of the use of a highly effective method of regulatory enforcement. It does so without burdening EPA with additional procedural hurdles. *Dow* is a very close decision, however, and contains a particularly sharp dissenting opinion by Justice Powell. Therefore, it may have a limited scope of application in the future.

The core of the majority's opinion revolves around the finding that EPA did not do anything any member of the public could not have done. And while Dow may have had an expectation of privacy even from aerial observation, this expectation stemmed from a desire to protect its trade secrets from competitors. The Court noted: "That such photography might be barred by state law with regard to competitors, however, is irrelevant to the questions presented here. State tort law governing unfair competition does not define the limits of the Fourth Amendment."[142] The Court found that the photographs taken by EPA were "not so revealing to intimate details as to raise constitutional concerns."[143] The taking of such photographs, therefore, does not constitute a Fourth Amendment search.

The majority was careful to limit its holding to very similar factual situations, and outlined certain limits on EPA's activities. "An electronic device to penetrate walls or windows so as to hear and record confidential discussions of chemical formulae or other trade secrets would raise very different and far more serious questions."[144] Further, the Court conceded that government surveillance using sophisticated equipment not generally available to the public might still require a warrant.[145]

The dissenters were deeply concerned with the majority's emphasis on the relative intrusiveness of EPA's actions as measured

141. *Id.*
142. *Id.* at 1823.
143. *Id.* at 1826-27.
144. *Id.* at 1827.
145. *Id.*

by the sophistication of the equipment. Powell interpreted the majority opinion as rejecting outright the claim that Dow even had a privacy interest. He also thought the majority put too much emphasis on the fact that there had been no physical entry by EPA into Dow's plant.[146] While some of Powell's concerns may raise more serious questions, these two assertions are erroneous. The majority did not, as Powell states, base their decision on whether there had been physical entry into Dow's plant. In fact, the majority opinion specifically recognizes other surveillance devices not requiring physical intrusion may very easily raise constitutional concerns.[147]

Neither did the majority say that Dow had no privacy interest at all. Rather, the privacy interest Dow had was limited to protecting trade secrets from competitors.[148] Even if this privacy expectation was reasonable, and even if it included protection from competitors flying over the plant, it still was not the type of expectation required by the Fourth Amendment and outlined in *Katz*.[149] It is this perception of Dow's expectation that causes the majority and dissent to reach an impasse.

To the dissent, Dow's precautions indicated a sufficient and reasonable expectation of privacy in its plant. Moreover, the expectation was one society had accepted as legitimate, thus meeting both requirements of *Katz*.[150] According to Powell, "Dow has a reasonable expectation of privacy in its commercial facility in the sense required by the Fourth Amendment. EPA's conduct in this case intruded on that expectation because the aerial photography captured information that Dow had taken reasonable steps to preserve as private." [151]

In contrast, the majority asserted EPA's actions did not intrude on anything Dow reasonably could have expected to keep private.[152] EPA was flying in lawfully navigable airspace, just as any members of the public could have, and in fact often do.[153] EPA did not intrude on Dow's privacy to the extent that they crossed a con-

146. *Id.* at 1827. *See, Katz*, 389 U.S. 347, where the Court rejected the contention that actual physical entry must take place for a search to occur.

147. 106 S. Ct. at 1827.

148. *Id.* at 1823.

149. *See supra* notes 63-76 and accompanying text.

150. *Id.*

151. 106 S. Ct. at 1832.

152. *Id.* at 1827.

153. *Id.* at 1824. The plant was located within take-off and landing patterns of a nearby airport.

stitutionally recognized expectation.

The dissent, on the other hand, did find Dow's expectation to be of constitutional merit, and consequently found EPA's intrusion upon it a constitutional violation. Justice Powell in writing the dissenting opinion interpreted the majority not as saying there was no constitutional expectation; rather, he perceived the majority as saying the EPA had intruded upon Dow's expectation, but simply had not intruded far enough. To Powell, the decision appeared to be based on the magnitude of the intrusion, rather than the magnitude of the expectation which had been intruded upon.

This misperception led Powell to fear that future cases would be decided on the basis of arbitrary line-drawing by the Court according to relative amounts of intrusiveness. Powell was very concerned that the majority was measuring how far a constitutional expectation had been intruded upon, rather than whether it had been intruded upon. In fact, the majority had found no constitutional expectation to exist.

Powell's confusion probably stems from the fact the expectation itself must be defined in terms of what you want to protect yourself against. Here, Dow could not reasonably have expected the Fourth Amendment to protect it from being photographed in the manner which EPA photographed it. The nature of the photography was not intrusive enough for Dow to have a constitutional expectation against it. Justice Powell, however, did attach constitutional significance to Dow's expectation, and found any intrusion of it to be a constitutional violation. What Justice Powell fears to be arbitrary line-drawing is actually the phenomenon of defining the expectation in terms of the intrusion. The Court noted:

> Fourth Amendment cases must be decided on the facts of each case, not by extravagant generalizations. 'We have never held that potential, as opposed to actual, invasions of privacy constitute searches for purposes of the Fourth Amendment.' *United States v. Karo*, 468 U.S. 705, 712 (1984). On these facts, nothing in these photographs suggests that any reasonable expectations of privacy have been infringed.[154]

B. Consensus on the Clean Air Act

One part of the *Dow* case is clear. The Court unanimously upheld EPA's right to use whatever methods are commonly available

154. *Id.* at 1827 n.5.

or traditionally used in the course of its investigations. This included the use of aerial observations in investigating sources of industrial emissions. This idea is well in accord with the intent and purpose of the Clean Air Act, under which EPA was acting in this case.[155]

The Act grew out of a great concern over increasing pollution, especially the industrial type involved here.[156] EPA was granted the authority to act as a check on that pollution by investigating its sources.[157] The authority granted was one of general investigatory powers, and EPA, within limits, was to use its own discretion in deciding the best methods to go about performing these duties.[158]

While companies such as Dow certainly have significant rights and interests, the drafters of the Clean Air Act were careful to consider these interests by, among other things, providing for on-site inspection of industrial premises by permission or by warrant only.[159] Therefore, the Act satisfies both industry interests in minimal government interference, and EPA's interest in not restricting its investigative authority with too many procedural hurdles. The Court in this case recognized this balance of interest, and was satisfied EPA had not tipped the scale too much in its own favor.[160]

VI. Conclusion

Dow Chemical does answer some important questions, both statutory and constitutional. It is a narrow decision, however, and will probably remain limited to very similar factual situations. EPA, though victorious here, will have to carefully consider the use of certain surveillance methods without a warrant. The privacy interests of industry will still weigh very heavily in the future, but EPA's power to effectively investigate pollution sources is certainly not diminished.

Mark Massey

155. *Id.* at 1824.
156. *Id.*
157. *Id.*
158. *Id.*
159. 42 U.S.C. § 7414(b).
160. 106 S. Ct. at 1824.