Constitutional Law: *Dow Chemical Co. v. United States*: Aerial Searches, Business Premises, and the Fourth Amendment

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Summer associates and clerks present significant problems because they frequently "split" summers among law firms. The Second Circuit has held that a law firm may be disqualified for hiring an attorney who had been exposed to adverse client confidences while a clerk at another firm.\(^1\) The court found the crucial factor to be that the clerk had access to confidential information.\(^2\)

**Conclusion**

The problem of vicarious disqualification is as old as the legal profession itself. Rules have been adopted to provide a practical solution. However, the judiciary is hesitant to take action because of the inequities that may affect a client. In the context of screening, however, the judiciary has incorrectly placed a greater emphasis on protecting the mobility of the attorney. The two attitudes are inconsistent. The rules indicate that the protection of the client is of the utmost importance. This is where the judiciary should concentrate its efforts.

_Warren Fields_

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**Constitutional Law: Dow Chemical Co. v. United States: Aerial Searches, Business Premises, and the Fourth Amendment**

Precision aerial photographs of an industrial complex taken without a warrant do not constitute a search for fourth amendment purposes, according to the holding of the Supreme Court in _Dow Chemical Co. v. United States_.\(^1\) The Court reached this conclusion by determining that Dow had no "reasonable expectation of privacy" because the facility was more like an "open field" than the curtilage of a home.\(^2\) However, even if curtilage status

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2. See _supra_ note 110.

2. _Id._ at 1827. For an early discussion of the concept of curtilage, see 4 W. BLACKSTONE, COMMENTARIES 225.

The word originally signified the land with the castles and outhouses, inclosed often with high stone walls, and where the old barons sometimes held their court in the open air, and the curtilage was originally known as the fenced-in area surrounding a castle. . . . The trend of modern decisions, and especially in the United States, has been to enlarge the original meaning of the word, and to include therein any house near enough to the dwelling house to be within its protection as a part
had been conferred on the facility, exposure to general aerial views rendered the EPA's photography a nonsearch.\(^3\) The Court's approach forced Dow's facility to fit into the curtilage/open field dichotomy despite the facility's unique characteristics. Had the Court first applied an administrative search analysis instead of focusing on distinctions between a curtilage and an open field, a more tailored decision might have been reached.

This note addresses the question of whether a more circumspect analysis would have been preferable to the approach taken by the Supreme Court. Applying the administrative inspection analysis offered here, the EPA did in fact conduct a search. The administrative inspection analysis explained in this note is better suited to determine the reasonableness of a search under the fourth amendment than is the traditional "reasonable expectation" approach used by the Court.

The first part of this note traces the history of the fourth amendment and judicial decisions defining its applicability in commercial settings. In the next part, the *Dow* case history in the lower courts is discussed. The note then evaluates the problems associated with the approach taken by the Supreme Court. The note applies a logical framework to the facts in analyzing administrative searches in fourth amendment terms. Finally, a brief application of the facts in *Dow* to the framework presented will be given.

*Application of the Fourth Amendment in Commercial Settings*

The fourth amendment to the United States Constitution provides that:

> The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.\(^4\)

The language of the amendment does not make clear whether it is applicable in commercial settings. The circumstances surrounding the adoption of the amendment, however, leave little room for doubt as to its applicability in commercial settings. Perhaps even more important, the Supreme Court, in a long line of cases, has held that the fourth amendment protects business premises.

The earliest English common law prohibitions of unreasonable searches and seizures involved the confiscation of papers from business premises.\(^5\) At

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\(^{25}\) C.J.S.2d *Curtillage* § 21 (1966), at 81-82.

\(^{3}\) *Dow*, 106 S. Ct. at 1827.

\(^{4}\) U.S. Const. amend. IV.

\(^{5}\) Entick v. Carrington, 95 Eng. Rep. 807 (K.B. 1765) (warrant that named person to be searched but did not name items to be seized invalid); Wilkes v. Wood, 98 Eng. Rep. 489 (K.B.
the same time the English common law was developing its own limits, the American colonists were also becoming concerned about the government's unbridled authority to search and seize. The Writs of Assistance Case argued in early 1761 demonstrated the vehemence with which many of the colonists viewed warrantless searches of business premises. One commentator described the case as the first link in the chain of events leading to the American Revolution.

Writs of assistance permitted any authorized representative of the Crown to search for and seize goods that had escaped taxation. So named because all officers and subjects of the king were commanded to assist in their execution, the writs were especially despised by businessmen and merchants. They were commonly issued, temporarily indefinite, and textually vague.

Because of the colonists' experiences with the British and their use of writs of assistance, the state constitutions after the Revolution generally reflected a preoccupation with writs of assistance and general warrants. Virginia's Bill of Rights, often regarded as the model for the Federal Bill of Rights, is representative of this concern.

From writs of assistance and general warrants to specific prohibitions in state constitutions, the history of the fourth amendment is inexorably tied to the privacy interests of business owners. Although the antecedents of the amendment are clear enough, it was not until Boyd v. United States that the Supreme Court validated the extension of protection to commercial settings. In Boyd, defendants in a criminal action were compelled to turn over invoices establishing the value of illegally imported glass products. According to statute, had the defendants failed to produce the invoices, a confession would have been assumed. Even though the defendants objected to

6. The case is also referred to as Paxton's Case. See D. O'Brien, Privacy, Law and Public Policy 38 (1979).
8. Id. at 53-54.
10. The final act of the Virginia Convention of 1788 was to recommend amendments to the Constitution. The fourteenth amendment read:

That every freeman has a right to be secure from all unreasonable searches and seizures of his person, his papers and his property; all warrants, therefore, to search suspected places, or seize [sic] any freeman, his papers or property, without information upon Oath (or affirmation of a person religiously scrupulous of taking an oath) of legal and sufficient cause, are grievous and oppressive; and all general Warrants to search suspected places, or to apprehend any suspected person, without specially naming or describing the place or person, are dangerous and ought not to be granted.

11. 116 U.S. 616 (1886).
the introduction of the invoices as evidence, a conviction was obtained and upheld on appeal.\textsuperscript{12}

On review, the Supreme Court recognized the government's right to seize illegal goods. In this case, however, personal papers were seized, which was at odds with the history and purpose of the fourth amendment.\textsuperscript{13} The Court reasoned that:

It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of his indefeasible right of personal security, personal liberty, and private property, where that right has never been forfeited by his conviction of some public offence.\textsuperscript{14}

The Court went on to state that the Framers would not have allowed "\textquoteleft\textquoteleft inconsistent disguises of the old grievance which they had so deeply abhorred.\textquoteright\textquoteright\textsuperscript{15}

A more lucid description of a corporation's rights under the fourth amendment was given in \textit{Hale v. Henkel}.\textsuperscript{16} In \textit{Hale} the secretary-treasurer of a corporation was held in contempt of court for refusing to produce subpoenaed documents and answer questions before a grand jury investigating possible violations of the Sherman Antitrust Act. The Court discussed at some length the inapplicability of the fifth amendment to corporate officers refusing to testify about the acts of the corporation.\textsuperscript{17} While the fifth amendment was held to have been designed to protect only private individuals, the Court held that a corporation may be protected from unreasonable searches under the fourth amendment.\textsuperscript{18} The Court found no restrictive implications in the fourth amendment. Because a corporation is an association of individuals under a distinct name and is granted legal status as a separate entity, it does not necessarily waive any constitutional rights as a feature of its formation.\textsuperscript{19}

The significance of \textit{Hale} lies in the fact that the fourth amendment applies equally to both individuals operating privately held businesses as well as to corporations.

The delineation of rights under the fourth and fifth amendments set forth in \textit{Hale} was upheld and further clarified in \textit{Oklahoma Press Publishing Co. v. Walling}.\textsuperscript{20} The case involved a subpoena duces tecum issued as part of an administrative investigation of suspected violations of the Fair Labor Standards Act. The corporation under investigation contended that the Act did not apply to it and that the issue of applicability must be decided before a ruling could be issued upon the legality of the subpoena. In upholding the

\begin{flushleft}
\textsuperscript{12} \textit{Id.} at 618. \\
\textsuperscript{13} \textit{Id.} at 622. \\
\textsuperscript{14} \textit{Id.} at 630. \\
\textsuperscript{15} \textit{Id.} \\
\textsuperscript{16} 201 U.S. 43 (1906). \\
\textsuperscript{17} \textit{Id.} at 74-76. \\
\textsuperscript{18} \textit{Id.} at 75-76. \\
\textsuperscript{19} \textit{Id.} at 76. \\
\textsuperscript{20} 327 U.S. 186 (1946). \\
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Act's applicability, the Court affirmed the fifth amendment's inapplicability to corporations and the fourth amendment's protection of them as announced in *Hale*.

The *Oklahoma Press* decision is significant because of the additional limitation placed upon the government's investigatory powers. Holding that the subpoena represented a "constructive search," the Court stated that an administrative agency must have the statutory authority to investigate and the materials specified by the agency must be relevant to the object of the investigation. It is important that the Court noted that adequacy of power and relevancy to purpose are not rigid, formulistic requirements, but are elements that will vary according to the specific circumstances of each situation.

Another sizeable element of protection under the fourth amendment was added within the framework of the more modern and familiar occurrence: the on-site municipal code inspection. In *See v. City of Seattle*, the Supreme Court held that a city fire department inspector did not have a right of entrance into a locked commercial warehouse without probable cause or a warrant. Seattle city law did not require the inspector to have either probable cause or a warrant before making an inspection. The Court concluded that it would be untenable to place fourth amendment restrictions on administrative subpoenas ("constructive searches") as was done in *Oklahoma Press* while allowing actual searches of commercial premises to be left to the discretion of the inspector in the field. The Court held the right of business owners to be free from unreasonable official entries to be as important as the privacy right enjoyed by private homeowners. No justification was seen in this context for relaxing fourth amendment standards for businesses while homeowners were given the full benefit of the amendment's protection.

Although the dissent in *See* offered a great deal of evidence documenting the range of problems in urban settings that could be identified by warrantless inspections, the majority held that a warrant is a necessary and tolerable limitation on the right to enter and inspect. Hence, it is only within the framework of a warrant procedure that an agency may have a right to enter a commercial area not open to the public.

21. *Id.*
22. *Id.* at 203-05.
23. *Id.* at 209.
25. *Id.* at 543.
26. *Id.* at 543. Camara v. Municipal Court, 387 U.S. 523 (1967), decided the same day as *See*, held that if obtaining a warrant does not frustrate the public purpose of an inspection, the occupant of a private dwelling is not under a duty to allow a city health inspector to enter without a warrant or probable cause. The Court applied the same principle to the facts in *See*. *Id.* at 542.
27. *See*, 387 U.S. at 543.
28. Justice Clark's dissenting opinion provides a litany of statistics on urban problems such as fire hazards, rodents, plumbing, crime, and contagious diseases. *Id.* at 550-52.
29. *Id.* at 544.
30. *Id.* at 545-46.
See is the apex of fourth amendment protection for business entities. It is not an absolute standard, however. Subsequent court decisions have carved out exceptions providing the justification for warrantless searches, which the Court in See alluded to but did not address. Nevertheless, the basic proposition in See is that at least some limitations on administrative inspections of commercial premises are constitutionally required.

This proposition should be the starting point for any discussion of the fourth amendment's relevance to an administrative search. From that premise, one is better able to focus on the fourth amendment itself rather than on intermittent case law that may be misleading. Under the requisites of the fourth amendment, administrative inspections should be scrutinized by a detached magistrate whenever possible to ensure that the inspection is necessary, authorized by statute, and sufficiently limited in scope. An administrative inspection analysis takes these considerations into account as prima facie elements of a constitutional search.

The Supreme Court's decision in Dow is the vehicle this note uses to illustrate the problems that may result from deviating from an administrative inspection analysis where a governmental administrative agency is involved in an enforcement action. Dow was selected for this purpose because of the probability that similar fact patterns will arise in the future. The remainder of this note explains how Dow was decided, why the Supreme Court's analysis may have been flawed, and why a modified administrative inspection analysis may be preferable for future cases.

Dow Chemical Co. v. United States: Lower Courts' Analysis

In September 1977, the EPA conducted an on-site inspection of two power plants located at Dow Chemical Company's Midland, Michigan, industrial complex. Although Dow had granted permission for the first inspection, the EPA's request for a second inspection was denied when Dow learned of the EPA's intentions to take photographs. In response, the EPA informed Dow that it would consider seeking an administrative search warrant to gain access to the plant.

The EPA did not seek a warrant; instead, it contracted with an aerialsurveyor to take photographs of the 2,000-acre facility. Approximately seventy-five color photographs were taken from elevations of 12,000, 3,000, and 1,200 feet. A $20,000 Wild RC-10 aerial mapping camera was used to take the pictures. Magnifying the pictures taken from 1,200 feet, power lines as small as 1/2 inch in diameter were easily visible with no significant loss in clarity.

31. Id. at 543-45.
32. Dow, 106 S. Ct. at 1822.
33. Id.
34. Id. Industry literature has described this particular camera as the "finest precision aerial camera available." Dow Chem. Co. v. United States, 536 F. Supp. 1355, 1357 n.2 (E.D. Mich. 1982).
35. Dow, 106 S. Ct. at 1827 n.5, explains that the reason power lines as small as 1/2 inch in diameter were easily visible with no significant loss in clarity.

https://digitalcommons.law.ou.edu/olr/vol40/iss2/5
The EPA did not inform Dow of its actions. After learning of the photographs a few weeks later, Dow filed suit against the EPA in United States District Court for the Eastern District of Michigan. Dow alleged that the EPA's flyover and aerial photography were an unreasonable search under the fourth amendment, that the photographs were a taking of property without due process in violation of the fifth amendment, and that the EPA had exceeded its enforcement authority under the Clean Air Act.

Two issues represent the thrust of the court's inquiry. The first issue is whether the EPA had statutory authority for its actions; the second is whether these actions violated the fourth amendment. If the EPA's flyover and photography were not authorized by statute, the fourth amendment is largely irrelevant to the case. If, on the other hand, the EPA was acting under statutory authority, the action may nevertheless be prohibited by the fourth amendment as an unreasonable search.

The district court held that despite the broad powers given to the EPA, it had not been given the statutory authority to make aerial inspections and take photographs from that vantage point. The court drew a restrictive implication that only earthbound inspections were authorized by statute from the portion of the Clean Air Act that granted the EPA a "right of entry to, upon, or through any premises" upon presentation of credentials.

Despite its ruling that the EPA had not acted under statutory authority, the district court went on to consider the fourth amendment issue. On this issue the court held that the EPA had conducted an unreasonable search. Applying an administrative search rationale, the court found that the EPA did not have the authority to make warrantless searches. Alternatively, applying the "reasonable expectation of privacy" standard set forth in Katz v. United States, the court held that Dow has an expectation of privacy and diameter are visible is because of the contrast with snow on the ground. It is hard to see why this makes much difference. Although snow may not be on the ground year-round, it is safe to assume that in places like Michigan, snow can be expected to be on the ground for a significant part of the year.

37. Id. at 1358. Cross-motions for summary judgment were filed. EPA sought summary judgment on all three issues while Dow asked for summary judgment on the fourth amendment and statutory issues only. The district court withheld entering summary judgment on Dow's fifth amendment taking claim, noting that genuine issues of fact remained. Id.
40. Id. at 1374.
41. Id. at 1359-60.
42. 389 U.S. 347 (1967) (Harlan, J., concurring). Katz involved the wiretap of a phone booth. Under Olmstead v. United States, 277 U.S. 438 (1928), a physical intrusion was necessary to violate the fourth amendment's proscription of unreasonable search and seizure. Katz rejected the Olmstead standard and replaced it with what has become known as the "reasonable expectation" standard. The most common formulation of the standard has been taken from Justice Harlan's concurring opinion, which frames it in the form of two questions: did the party demonstrate a reasonable expectation of privacy, and if so, is that expectation one society is prepared to accept as reasonable? 389 U.S. at 361. Katz is primarily a response to advancing
that its expectation was reasonable. The court noted the adoption of laws prohibiting misappropriation of trade secrets as a basis for the reasonableness of Dow's expectation of privacy in this context. The court also found that Dow's facility did not fall under the "open fields" exception because of Dow's reasonable expectation and because it would have the effect of making the EPA's actions a nonsearch, even though the EPA had admitted that it was involved in a "quest for evidence." The court noted the possibility that advances in technology may eventually turn any area into an "open field." Also, the EPA could easily have sought a warrant.

The EPA appealed to the Sixth Circuit Court of Appeals, which reversed the district court's decision on both the statutory authority and fourth amendment issues. Comparing the EPA's general investigatory powers to those exercised by the FBI, the DEA, and military investigators, the appellate court held that the EPA did not reach beyond its statutory authority in taking aerial photographs.

The fourth amendment issue was framed in terms of whether the EPA had conducted a search at all. In reaching its conclusion, the court applied the Katz analysis exclusively: first, did Dow exhibit an actual expectation of privacy, and second, was that expectation one society would recognize as reasonable? The court determined that Dow did not show any expectation of privacy from aerial photography, but even if it had, it would have been unreasonable because of the resemblance between the Dow facility and an open field. On that basis, the court held that the EPA had conducted a nonsearch.

_Dow Chemical Co. v. United States: The Supreme Court's Analysis_

The Supreme Court granted Dow's petition for certiorari and affirmed the Sixth Circuit's decision. On the statutory authority issue, the Court held that the EPA did not need specific authority to carry out investigations with tools available to the public at large. The Court indicated that the EPA's enforcement powers under the Clean Air Act are relatively expansive and are nonexclusive. Comparison was made to a police survey of traffic despite the absence of specific authorization for aerial observation.

On the fourth amendment issue, the Court followed the Sixth Circuit's approach. Examining the case strictly in terms of curtilage and open fields, the
Court held that Dow's complex more closely resembled an open field than a curtilage. The Court thought that enhancement of a naked-eye view, available to the public, did not create constitutional problems, although perhaps the use of more sophisticated technology such as a satellite may raise that concern.\(^{31}\)

The Court did not explain why it discarded the approach taken by the district court. The point of divergence between the district court and the Supreme Court, and indeed the crux of the fourth amendment issue, is the characterization of what the EPA did when it flew over Dow and took pictures. If the action was a search, it should have been subjected to an administrative search analysis under the fourth amendment. If, on the other hand, it was not a search, then there was no need to consider constitutional protection. The distinction is critical.

**Reasonable Expectations**

At this point it is helpful to look at one particular section of the Sixth Circuit's opinion. Before it applied the *Katz* analysis, the court drew a line between a "reasonable search" and a "reasonable expectation of privacy." According to the court, a "reasonable expectation of privacy" is the touchstone for the determination of whether a search has occurred at all.\(^{32}\) "Reasonable search" is whether there was probable cause to conduct a search or whether the limits of a warrant were exceeded.\(^{33}\)

The distinction the Sixth Circuit made in attempting to define a search is unnecessary and subject to manipulation. As other writers have correctly indicated, "reasonable expectations" is not a concept of privacy that can withstand determined and repeated assaults from the government or other entities.\(^{34}\) For example, if the government bombarded the media with announcements that everyone entering public buildings will be frisked by police, there could be little, if any, "reasonable expectation" of privacy when entering a public building. Any residual expectation would quickly dissipate after the first frisking. One could then only have a reasonable expectation of no privacy when entering a public building. Yet most persons would still call the frisking a search subject to fourth amendment scrutiny as to whether the search was reasonable rather than expected.\(^{35}\) This is a simple example of how the fourth amendment could conceivably be sidestepped altogether by asking if there was a reasonable expectation of privacy before deciding if a search actually took place. Then, one never reaches the question of whether what took place was reasonable.\(^{36}\)

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51. *Id.* at 1826.
52. *Dow*, 749 F.2d at 312.
53. *Id.*
55. The fourth amendment makes no mention of expectations; only searches are divided between reasonable and unreasonable.
56. See generally Amsterdam, *supra* note 54.
When asking whether the EPA conducted a search, both the Sixth Circuit and the Supreme Court concluded that Dow had not demonstrated any expectation of privacy from aerial inspection; but even if it had, the expectation would have been unreasonable because of the classification of Dow's facility as an open field rather than as curtilage.57 This particular categorization dilutes the protection of the fourth amendment for industrial complexes such as Dow's. This either/or choice does not allow much room for atypical situations that had not been encountered when the doctrine emerged. Nevertheless, the issue merits some attention. Arguing that an industrial complex in certain instances can be analogized to the curtilage of a home returns business premises closer to the type of protection afforded private homeowners discussed in Hale.58

**The Industrial Curtilage**

Common sense, as well as judicial interpretation, makes it clear that the fourth amendment does not protect conduct in open fields as Justice Holmes pointed out in *Hester v. United States*.59 Extending fourth amendment protection to a literal open field setting is unnecessary and unworkable. Necessity and workability of that protection, however, becomes more debatable as the open field becomes less open and less like a field.

At the other end of the spectrum is the inner confines of a private dwelling. There could be little argument that no place deserves more protection from unreasonable searches and seizures. Generally, the strength of this protection has even been extended to a limited area around the home called the curtilage.60

Using *place* as a reference point in applying the fourth amendment is appealing. It is seemingly a bright line that makes for consistent decision making. Once the categorization of either curtilage or open field is made, it is relatively easy to decide if the activity is protected by the fourth amendment.61

The problem with this dichotomy is embodied in the facts of the Dow case: just exactly what is the Dow facility, curtilage or open field? What kind of analysis is applied if the answer is neither? Can business premises ever have a curtilage? Can they ever really be an open field?

The Dow complex is unique in terms of the dichotomy. The Supreme Court admitted as much when it noted: "The area at issue here can perhaps

58. See *supra* text accompanying note 16.
60. See *supra* note 2.
61. What constitutes a curtilage apparently is a mixed question of law and fact. See, e.g., United States v. Williams, 581 F.2d 451 (5th Cir. 1978) (curtilage ends at the outer walls of the most extreme outbuildings); *Care v. United States*, 231 F.2d 22 (10th Cir. 1956) (curtilage determined by proximity to dwelling, inclusion within the general enclosure surrounding the dwelling, and the use and enjoyment of the area as an adjunct to the domestic economy of the area); *United States v. LaBerge*, 267 F. Supp. 686 (D. Md. 1967) (shed 190 feet away from dwelling not part of the curtilage).
be seen as falling somewhere between ‘open fields’ and curtilage, but lacking some of the critical characteristics of both.’ Dow argued that its facility, and more specifically the areas within the complex photographed by the EPA, are actually part of an industrial curtilage with many of the attributes of the curtilage around a home. Given the manufacturing processes contained in the facility and society’s willingness to recognize the value of those processes remaining secret, Dow asked that its facility receive a degree of protection similar to what the curtilage of a home would receive.

The Court summarily rejected this notion of comparison between an industrial complex and the area around a home. It quickly concluded that “[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.”

The Court offered no reasoning to support its conclusion. Obviously, a 2,000-acre manufacturing plant is not the same as a person’s backyard. But despite the difference, the expectation of privacy can aptly be analogized. Familial intimacy is not the only reason for valuing privacy. Dow presumably valued its privacy because of the nexus between its industrial knowledge and its corporate identity. Just as a family would lose some of the characteristics that make it a family if intimacy were denied, so might a business lose some of its vital characteristics if its privacy were denied. If in the past Dow had no ability to determine who had access to its manufacturing processes, chances are that Dow would be a vastly different organization than it is today.

Of course, the “right to privacy” is not mentioned specifically in the Constitution. That right, however, has been given constitutional weight via the first, third, fourth, fifth, and ninth amendments in various situations. For example, in Griswold v. Connecticut, the marriage relationship was given protection from outside interference through a “right to privacy” because of the sacredness of the marriage bond, the social utility of marriage as an institution, and the personal intimacy involved. The Court in Dow recognized that a business has the same kind of right to privacy, namely a right to be free from unreasonable inspections in the form of physical intrusions into its facility. The fourth amendment protects this right. It would also seem to protect the area in Dow’s facility from being photographed if physical intrusion were necessary to pass through the covered portions of the plant to reach the uncovered portions.

62. Dow, 105 S. Ct. at 1825-26 (emphasis added).
63. Id. at 1825.
64. Id.
65. The difference between “intimacy” and “privacy” may only be one of specificity. For the purposes of this note, “intimacy” is used only in reference to the relations enjoyed in a family setting.
67. Id. at 486.
68. Dow, 105 S. Ct. at 1825.
NOTES

The basic reason for creating a curtilage around a private dwelling is that some of the activities that take place within a home may also take place in the backyard as well. Relying on this basic premise, one could logically create a curtilage for a business entity as long as the same type of activities take place there that take place inside the principal business structure. Just as the concept of a curtilage for the private dwelling was not designed to protect criminal activity from discovery, so is the concept of an industrial curtilage. Curtilage is extended to protect certain activities in a limited outside area.

In Dow's case there has been societal recognition of a need for enhanced protection of privacy. Trade secret laws, both federal and state, represent special awareness of the important interests served by sensitive technical information remaining secret. For economic and constitutional reasons, trade secrets are given special protection from unnecessary discovery and exploitation. The Clean Air Act itself provides for protection of trade secrets during enforcement actions.

The majority opinion rejected the trade secret reasoning. Declaring that the EPA did not compete with Dow, the Court held that "[s]tate tort law governing unfair competition does not define the limits of the Fourth Amendment." The Court concluded that photography is barred only where there is an intent to use trade secrets revealed by the pictures taken.

This argument fails to address the central feature of trade secret protection: that Dow and others similarly situated should receive the maximum protection available from unauthorized trade secret appropriation without infringing upon legitimate government interests. The irony is that the EPA (or any other regulatory body) is probably unaware of whether it possesses sensitive trade secret information. The business entity must usually make special arrangements with the regulating agency to obtain additional protection of trade secrets. Where the agency does not inform the business that it is in possession of information that may be potentially sensitive, the business is unable to take full advantage of trade secret protection. In this case, while the EPA does not directly compete with Dow, it would be in possession of sensitive information from Dow's perspective. There is always the possibility

69. 18 U.S.C. § 1905 (1982) is the principal prohibition on disclosure of trade secrets by government officials. The prohibition extends to information that "concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person." Id. There are approximately forty-five other trade secret provisions in various pieces of legislation covering everything from poultry inspections to electronic product radiation control.

70. The preservation and confidentiality of trade secrets is an important incentive to continue to innovate. It does not require much imagination to envision a state of affairs where technical information developed through the private investment of money in research and development was in the public domain. One court has held that trade secret laws work in harmony of purpose with patent laws. See Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974).

71. 42 U.S.C. § 7414(c) (1982). This provision prohibits the misappropriation of trade secrets by the EPA that are gathered as a result of enforcement actions.

72. Dow, 106 S. Ct. at 1823.

73. Id.
of theft or loss through carelessness. In addition, if not carefully guarded, others not directly involved may have access to the photographs or other evidence.\textsuperscript{74} Also, the information could be inadvertently passed on to legitimate competitors. Congressional investigators could also acquire the information.\textsuperscript{75} These are just a few of the scenarios trade secret laws are designed to prevent.\textsuperscript{76} While requiring a warrant in such circumstances does not guarantee that any of the foregoing scenarios would never materialize, it would allow for an impartial party to have some input as to whether the information sought was of a potentially sensitive nature.

\textit{Aerial Views}

Even if the Court recognized the existence of an industrial curtilage with a higher degree of privacy, the real problem in protecting it in a case like this is clearing the hurdle of aerial surveillance as being something other than a plain view. \textit{Ciraolo v. California}, decided the same day as \textit{Dow}, held that aerial surveillance from a police helicopter that discovered marijuana growing in the backyard of a home enclosed by a 10-foot fence did not violate the fourth amendment.\textsuperscript{77} \textit{Ciraolo} affirmed the continuing validity of the curtilage concept. Although the curtilage doctrine carries more protection from search and seizure, it does not give protection from all outside views. Because the backyard was exposed to an overhead view or a view from a "2-level bus,"\textsuperscript{78} the homeowner cannot have a reasonable expectation of privacy from those vantage points.\textsuperscript{79}

Taking the Court's approach to its extreme, a homeowner must shield his backyard to all possible views in order to enjoy complete privacy.\textsuperscript{80} This would inevitably require a roof and a fence higher than a double-decker bus. The problem is more acute for industrial complexes such as Dow's. As Dow explained in its brief, a roof would be prohibitively expensive. Safety concerns would also abound as explosive gases could become trapped, accumulate, and then ignite into a deadly fireball.\textsuperscript{81}

It is extremely important to realize that Dow was not concerned with photographs taken at ground level or with views from a nearby hillside.\textsuperscript{82} Since the facility is located in the vicinity of a local airport, Dow is probably not worried about random views from passing airplanes. Dow's expectation of privacy is limited.

Before \textit{Katz}, physical intrusion in the form of a trespass delineated a search from a nonsearch.\textsuperscript{83} The type of intrusion advancing technology made

\textsuperscript{75} Id.
\textsuperscript{76} Id.
\textsuperscript{77} 106 S. Ct. 1809 (1986).
\textsuperscript{78} Id. at 1812.
\textsuperscript{79} Id. at 1813.
\textsuperscript{80} Id. at 1818.
\textsuperscript{81} Dow, 106 S.Ct. at 1828 n.1.
\textsuperscript{82} Id. at 1827.
\textsuperscript{83} See supra note 42.
possible without physical entry has precipitated the change in thinking on fourth amendment matters. By including the type of surveillance in which the EPA engaged with any kind of aerial view such as a view from a passing airliner, the Court returned fourth amendment analysis back to an artificially simplistic and unrealistic process. What the Court is in fact saying is that if the object is not covered very well, it is exposed to the public and, therefore, no reasonable expectation of privacy can exist.  

Inexplicably, the Court accepted the EPA's concession that pictures taken from a satellite would somehow be more intrusive than the photographs it took and would therefore be proscribed by the Constitution.  

No reasoning was given for the line drawn between a satellite photograph and one taken by a precision aerial-mapping camera mounted in a plane. The two seem identical except that a satellite takes pictures from higher altitudes and orbits the earth regularly—two seemingly irrelevant distinctions. Dow would not know if it was being photographed by a satellite; it did not know it was being photographed by a plane at 1,200 feet. Furthermore, it is doubtful that a satellite could take pictures more revealing than the ones obtained by the EPA, which showed power lines with a diameter of 1/2 inch. Trivializing fourth amendment protection by measurements in millimeters strips the amendment of the substance demanded by those Framers who had experienced the writs of assistance.  

The Dow decision leads the way to the edge of yet another slippery slope. The EPA's argument, adopted by the Court, is that aerial photography does not violate any right to privacy because anyone can legally take a picture from any place (except for Dow's competitors who intend to steal trade secrets). Because anyone can take a picture, there is no reasonable expectation of privacy. This is the fallacy of the reasonable expectation standard. Because members of the general public can fly over Dow and take pictures with an Instamatic, the EPA can fly over with a $20,000 precision aerial-mapping camera with the sole purpose of obtaining seventy-five highly detailed color photographs. The Court apparently saw no difference between the two situations. The result is a nonsearch.  

**Future Implications**  

It is not difficult to see how the Dow decision might self-destruct in the future. The age of private satellite surveillance could soon be upon us. LANDSAT, a satellite originally owned and deployed by the federal government to identify natural resources, has been sold to a private concern.  

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84. This is exactly the type of analysis that Katz was designed to replace. Before Katz, a physical intrusion was necessary to violate the fourth amendment. With the Dow decision, technologies which may be able to "see" through coverings, such as infrared heat devices, could be used to circumvent the fourth amendment by penetrating a covering without the naked eye.  

85. Dow, 106 S. Ct. at 1826-27.  

86. See supra note 35.  

87. See generally Amsterdam, supra note 54.  

88. Dow, 106 S.Ct. at 1827.  

Although LANDSAT was originally used by the government to search only for natural resources, one can visualize private companies launching their own satellites with other economic pursuits in mind. Undoubtedly, the photographic capabilities of these satellites will continue to become more sophisticated. As these private companies begin to photograph, regardless of what is photographed or intent, expectations of privacy begin to diminish. The Court would be forced to reevaluate its dictum in Dow based on the reasonable expectation standard. Ultimately, the government would be able to engage in its own satellite surveillance because of the availability of satellite photography to the public.

It seems incredible that a business or home must construct a roof to enclose its curtilage or near-curtilage to protect itself from unwanted aerial observation. Most businesses are not concerned with the random glances of passengers aboard airliners; at most they are fleeting and nonintrusive. Most businesses, however, would object to a lingering stare or a precision photograph taken from a plane or helicopter by a government agency. The Court declined to acknowledge different degrees of privacy interests from aerial observation. The result was effectively to make all types of aerial observation equal and, thus, to force a choice between sunlight and privacy, or in Dow's case, safety and privacy.

Proposed Administrative Search Analysis

A much more enduring result could have been reached had the Court employed an administrative search approach. An administrative search analysis allows for plain view exceptions and also addresses expectations, while not focusing on them as the sole determinant of reasonableness under the fourth amendment.

A four-step analysis could easily accommodate legitimate government interests with reasonable privacy concerns. It should be noted at the outset that this approach is designed only for searches conducted by administrative agencies and not for investigations or searches carried out by other law enforcement agencies.

Did a Search Occur?

The Sixth Circuit and the Supreme Court defined "search" as a term of art. Using the Katz analysis, both concluded that the EPA did not conduct a search because Dow did not have a reasonable expectation of privacy.

Defining "search" in terms of expectations, as explained earlier, is unnecessarily elastic although it does avoid the physical intrusion delineation. A better way to determine if a search has taken place might be to first examine the intent and motive of the actor and then determine if the conduct is reasonable.

92. Dow, 749 F.2d at 312.
93. See supra note 42.
A possible criticism of any inquiry into intent is the inherent subjectivity of determining what an actor was thinking when a particular action occurred. In the context of administrative searches, the problem is not so serious as it may appear on first impression. Administrative agencies are generally charged with specific law enforcement duties. One effective way to enforce is to search for evidence of violations. Many legislative acts governing administrative agencies specify searches as legitimate means of enforcement. If a particular activity carried out by an administrative agency resembles a search, it could be presumed or inferred that what took place was a search because of the affirmative duty to enforce created by the legislature. It makes little sense for an agency to request entrance to search and seize or to fly over and take pictures of a plant that the agency is not authorized to regulate. In this narrow sense, administrative agencies do not have the freedom of private citizens to engage in whatever conduct they choose. As creatures created by the state, their range of action is limited. This difference between the conduct permissible for a private citizen and for an administrative agency is crucial; it makes the intent inquiry workable in this context. Measuring the agency's action against legislative objectives where the action may be questionable would provide some semblance of objectivity in the intent inquiry. The problem with any ex post facto intent inquiry, whether it be for a common law tort or an administrative search, is not the desirability of ascertaining intent but rather pinpointing the intent somewhere along the spectrum of human thought. For an administrative agency, intent is much easier to determine because the spectrum of possible agency action is limited.

The purpose of the intent inquiry is to distinguish actions like precision aerial photography from a picture taken by an ordinary passenger on an airliner. This differentiation avoids the problem of an EPA official taking pictures with an Instamatic from a passing airliner. This could be termed as merely investigatory because it is highly unlikely that the EPA would actually spend the money to conduct a search in this fashion. It would surely be much easier and more cost-effective to request an administrative subpoena for blueprints of Dow's plant. Another way of looking at the intent question is the mirror image of the likelihood of an EPA official conducting a search with an Instamatic from an airliner: the likelihood of a general member of the public contracting with an aerial mapping company or purchasing a $20,000 camera just to take pictures of an industrial facility. The oddity of the occurrence points toward something more than a simple investigation. The intent inquiry would also distinguish pictures taken by the mapping company for its own map-making purposes. Map-making is one of the permissible actions along the spectrum of activity for a map-making company. Had the EPA claimed that it was making maps, it would be rather clear that something else had been intended because the EPA is not charged with any map-making duties. Examining intent in this way is much more likely to trigger further fourth amendment analysis than is an examination of the expectations of the party that is observed.

Another possible criticism of an intent-based inquiry is that it would be overly broad. It is probably true that many of what are now called non-
searches would become searches under this approach. However, that does not mean that all searches would be prohibited under the fourth amendment. What it means is that one proceeds to the next step of analysis. The opinion of a magistrate is not necessary to tell the actor to proceed to the next step. As the language of the amendment makes clear, only unreasonable searches are unconstitutional. Thus, although an action may be classified as a search because of the intent of the actor, it must still be deemed reasonable or unreasonable. A broad definition of "search" does not impose any additional burdens on the judicial system at this stage; it does heighten fourth amendment awareness within the agency.

Was the Search Reasonable Per Se?

Searches that are reasonable per se would fall under three exceptions: express consent, circumstances of haste, or plain view. Plain view, of course, would be the most relevant to the case at hand. A common sense definition limiting plain view to observations unaided by extraordinary vision enhancement such as supertelescopic photographic equipment or satellite technology would prevent the type of contortion to which the phrase "reasonable expectation of privacy" is subject. Express consent and circumstances of haste are self-explanatory, at least conceptually. A full treatment of how they would be applied in any unique way is beyond the scope of this note.

Was the Search of a Pervasively Regulated Industry?

Several cases have created an exception to the general proposition that warrantless searches are unreasonable per se. By virtue of the fact that certain industries have been historically subject to pervasive regulation, a warrantless search does not contravene the fourth amendment.

Two industries have been explicitly exempted: liquor and firearms. In Connonade Catering Corp. v. United States, the Supreme Court held that the requirement in See that an administrative inspection of business premises must be accompanied by a warrant does not apply to the liquor industry. Because the liquor industry has traditionally been tightly regulated, and is still tightly regulated, warrantless searches are not unreasonable.

United States v. Biswell held that warrantless searches of dealers of firearms were not unreasonable. The Court advanced three reasons for

94. See supra note 55.
95. Amsterdam, supra note 54, at 358-60.
96. Another peripheral consideration is the consequences for the legal profession as a whole when common terms are twisted and infused with new meanings. The public's perception of the legal profession is at a low ebb. Linguistic honesty, where possible, could help restore lost confidence. See generally Lundquist, Where the Flaws Lie, 10 Litig. 2 (1984); Pannill, All About Litigation, 10 Litig. 2 (1984).
97. Amsterdam, supra note 54, at 359-60, is an excellent starting point for a thorough discussion of these exceptions.
99. Id. at 75-76.
creating the exception. First, there is an extremely strong state interest in the control of firearms. Second, due to the nature of the business, warrantless searches are necessary for effective enforcement. Third, the expectation of privacy on the part of the dealer is minimal; a warrant in this kind of inspection would offer little protection.  

Two other cases offer additional guidance in this area. Marshall v. Barlow's, Inc.

held that a warrantless OSHA inspection of a plumbing business would be an unreasonable search under the fourth amendment. The Court affirmed the exceptions created in Colonnade and Biswell but rejected employee health and safety as a third caveat to the general rule. A plumbing business does not have the same expectation of governmental search as does the gun dealer or liquor distributor. In this case a warrant does offer protection by assurance from a neutral third party that the inspection is reasonable, authorized by law, pursuant to a specific administrative plan, and sufficiently limited.

In Donovan v. Dewey, a mine operator refused to allow an inspector on the premises to check for violations of the Federal Mine Safety and Health Act (FMSHA) without a warrant. The Supreme Court held that the FMSHA established a system of warrantless inspections that did not "offend the Fourth Amendment." Inspections of commercial property that are not authorized by law or do not further a federal interest are unreasonable searches. But a search may also be constitutionally objectionable if it is so random, infrequent, or unpredictable that for all practical purposes there is no real expectation that property will occasionally be inspected. The inspection procedure contained in the FMSHA avoided those pitfalls; the OSHA system did not. Additionally, the Court noted a significant federal interest in mine safety. Instead of looking at the history of governmental regulation in the area, it was held that the pervasiveness and regularity of inspections are determinative of actual expectations.

The effect of the Donovan decision is to create a quasi-exception. Mine safety is a significant federal interest, but not of the magnitude of liquor or firearms. Warrantless inspections are permissible as long as they are not left to the discretion of the inspector in the field. The authorizing legislation must also establish an inspection system that adequately protects privacy interests by the same type of notice and regularity that liquor and firearm businesses are given.

101. Id. at 316.
103. Id. at 314-15.
104. Id. at 316.
106. Id. at 602.
107. Id. at 604.
108. Id. at 605-06.
Does the Authorizing Legislation Contain a Reasonable Inspection System?

The Marshall and Donovan decisions offer only clues as to the necessary conditions for an administrative inspection system that protects commercial privacy interests. There must be a significant federal interest present. Liquor and firearms are of paramount interest, and mines of less interest, but still significant. The Court in Marshall excluded employee safety from the paramount interest category, but did not necessarily exclude it from the next level of significance. Had the inspections authorized by OSHA been less discretionary, it is quite possible that employee safety would have been given the same status as mine safety.

There must be an expectation of regular inspection. Drawing from Donovan, if the inspections are so random, infrequent, or unpredictable as to not create an expectation of regular inspections, the system does not adequately protect privacy interests. It is unclear whether those qualifiers are conjunctive or disjunctive for purposes of judicial review of the authorizing legislation.

Dow and the Administrative Search Analysis

Applying the facts in Dow to the framework proposed in this note, the EPA’s actions might have been held to be unconstitutional. Under the intent-based first step of the inquiry, the EPA conducted a search. The EPA admitted as much when it stated that it was involved in a “quest for evidence.” A check for closeness of fit between a stated legislative objective and agency action also points toward a search because the EPA is charged with enforcement responsibilities.

The EPA’s search under the second step of the analysis could not be classified as reasonable per se: it was not carried out pursuant to a warrant nor did Dow give express consent for the search. Since the EPA left the time for the actual photography to the aerial mappers, there were no circumstances of haste. The area effectively searched was not in plain view because the EPA had to contract with an aerial mapping company to obtain photographs with the clarity and detail that the EPA desired. What the EPA saw in the photographs was not what a plain view would have revealed, but rather what modern photographic technology revealed.

The third level of the analysis examines whether Dow was a pervasively regulated industry. Obviously, Dow does not fall under the automatic excep-

110. Donovan, 452 U.S. at 602.
111. The case only compares OSHA with FMSHA. Although the words “random,” “infrequent,” and “unpredictable” are used in the decision, all that can be discerned for certain is that the inspection system must be “tailored.”
112. Dow, 536 F. Supp. at 1370.
113. Id. at 1361.
tions of liquor and firearms. Whether air pollution in general would fall under the second category of significant federal interest is debatable. More specific standards would have to be formulated before a consensus could be reached.\textsuperscript{114}

The final step, assuming the air pollution passed the pervasive regulation test, is determining whether the inspection system adequately protected the privacy interests of business entities. This note does not purport to give an in-depth analysis of the inspection system contained in the Clean Air Act; however, the relevant portions of the United States Code charging the EPA with enforcement of air pollution laws do not provide a great deal of structure with regard to regular, periodic inspections, nor do they exhibit an overt concern with the privacy interests of the industries they are designed to regulate.\textsuperscript{115}

\textit{Conclusion}

The fourth amendment has its roots in the experiences of businesses subjected to unreasonable, warrantless searches. Although the amendment does not specifically cite businesses as protected entities, the history of the amendment and judicial interpretation have extended its protection to business entities. Culminating with \textit{See}, the Supreme Court has gradually expanded the scope of that protection. Since then, limited exceptions to the general rule that warrantless searches are presumptively unreasonable have been made.

The Supreme Court’s decision in \textit{Dow} is not necessarily incorrect; under the approach suggested here, the Court could have reached the same result. The problem is that by using the reasonable expectation standard from \textit{Katz}, the Court was forced to look at Dow’s facility in terms of either curtilage or open field. It is submitted that an industrial complex can legitimately be compared to the curtilage of a home based on the privacy interests protected within a structure and the similar activities that take place outside of the structure. The Supreme Court rejected this idea by concluding that Dow’s facility was more analogous to an open field. Even if the Court had recognized the industrial curtilage, Dow’s plant was still exposed to aerial observation, demonstrating that Dow could not have had a reasonable expectation of privacy from those vantage points directly above it.

The Court’s sanction of the reasonable expectation approach in this context impinges on fourth amendment protection in four ways. First, expectations can be manipulated by external sources. Government can affect whether expectations are reasonable by its own actions, regardless of whether those actions are reasonable themselves. Private actions, exempted from fourth amendment scrutiny, can set the stage for the alteration of expecta-

\textsuperscript{114} See generally Martin, \textit{EPA and Administrative inspections}, 7 Fla. St. U.L. Rev. 123, 131-32 (1979), which argues that the EPA does not engage in the type of pervasive regulation discussed in \textit{Marshall} and \textit{Donovan}.

\textsuperscript{115} 42 U.S.C. § 7414(a) (1982).