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PLAIN TALK: 
MAKING NEPA WORK

Michael Axline
John Bonine*

An English chancellor in 1596 had a hole cut through the center of a wordy and confusing 120-page legal document. He then ordered the lawyer who had written it to put his head through the hole, and made him wear it around the court as an example to others.¹ No judge has yet ordered a government official to wear an environmental impact statement around her neck. In one notable decision, however, a federal court issued a year-long injunction against the entire federal chemical spray control program to control gypsy moths because the EIS was too dense and technical to be read and understood.²

The National Environmental Policy Act (NEPA)³ was intended to raise the environmental consciousness of federal agencies by forcing them to consider and discuss publicly the environmental consequences of proposed actions.⁴ The heart of NEPA is its requirement that information regarding environmental impacts be communicated to the public and to decisionmakers through Environmental Impact Statements (EISs) and environmental assessments (EAs). If these documents are not written clearly and concisely, they cannot fulfill their function. As

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¹R. Wydick, Plain English for Lawyers 3 (2d ed., 1985) (citing Mylward v. Welden (Ch. 1596), reprinted in C. Monro, Acta Cancellariae 692 (1847)).


⁴The Senate Committee report accompanying S 1075, the NEPA bill, stated: “S. 1075, as reported by the committee, would provide all agencies and all Federal officials with a legislative mandate and a responsibility to consider the consequence of their actions on the environment. This would be true of the licensing functions of the independent agencies as well as the ongoing activities of regular Federal agencies.” S. Rep. No. 296, 91st Cong., 1st Sess. 14 (1969).
the court said in Oregon Environmental Council, “basic common sense tells us that in order for a document to be used . . . those using it must first be able to read and understand it.”

In this article, we will examine the most important factor in making environmental documents readable — the use of plain, concise, English. We begin with a brief demonstration of how bad English can prevent the communication of information. We then examine the NEPA- implementing regulations of the President’s Council on Environmental Quality (CEQ), looking for readability requirements. Next, we look at judicial opinions addressing the readability of documents in several contexts, including the NEPA context. Finally, we offer some modest suggestions for amending the CEQ regulations. The suggested amendments would impose stricter obligations on federal agencies to insure that their NEPA documents can be read and understood by decision-makers and the public.

I. ABUSING THE ENGLISH LANGUAGE

In 1817 Thomas Jefferson criticized government documents (statutes) written by lawyers for “making every other word a ‘said’ or ‘afore-said,’” and saying everything over two or three times, so that nobody but us of the craft can untwist the diction and find out what it means . . . .” Unfortunately, little progress has been made in improving the quality of government documents.

Proponents of proper English often turn to administrative agency documents when searching for good examples of bad writing. Such documents provide a wealth of ambiguous, overly-technical, stilted, and opaque uses of the English language. Agency misuse of the English language can result in violations of the agencies’ obligations to inform the public. Agencies may even deliberately use language which is difficult to understand in order to discourage meaningful public review of their activities.

For example, the Pentagon’s description of the stages of a nuclear war is “graceful degradation, restart and recovery.” Former Undersecretary of Defense Fred Ikle once called for the overthrow of the Nicaraguan government by urging “unconsolidation.” “Unconsolidation” is not a term of art in any non-military context. And it does not appear to convey information beyond what would be conveyed by the more conventional term “overthrow.” Given the incentive created by the political sensitivity of the subject matter to conceal the true meaning of the undersecretary’s suggestion, it is not difficult to infer that his choice of words was intended to minimize understanding of the message.

6. Wydick supra note 1, at 3-4 (quoting Letter to Joseph C. Cabell (September 9, 1817), reprinted in 17 Writings of Thomas Jefferson 417-18 (A. Bergh ed. 1907)).
There are numerous other examples of opaque and even bizarre language used by the government in circumstances where plain talk might cause an unwanted public reaction. For example, according to the Pentagon, rather than retreating from Lebanon, we simply “backloaded our augmentation personnel.” Tax hikes have evolved (devolved?) from being “revenue enhancements” in 1983 to being “tax base erosion controls” in 1985. And lest there by any doubt: “We were not micromanaging Grenada intelligencewise” until shortly before we invaded.

Deceptive and confusing language is not used exclusively by the military. A report from the U.S. Office of Consumer Affairs concluded that the U.S. Office of Education uses unclear English 36% of the time and the Social Security Administration uses unclear English 47% of the time.

Agencies are likely to expend more effort explaining and responding to questions about unclear NEPA documents than would be expended in discussing clear documents. By way of example, when the Federal Communications Commission (FCC) issued regulations for citizen band radio that were full of legalese, the agency needed five full-time staff members to answer the public’s questions. After the regulations were rewritten in plain English, the questions stopped and the five staff members were assigned to other areas.

There is no shortage of obfuscatory language in EISs. In a modest experiment, we decided to open two randomly selected EISs and quote a paragraph from whatever page came up when we opened the document. Here are the results. The first EIS we opened was the SEQUOIA NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN, FINAL ENVIRONMENTAL IMPACT STATEMENT. The document opened to page 16, where we found the following paragraph:

Because of expanded economic and recreational opportunities under the PRF, MKT, and PRO Alternatives, all local groups except Native American would be better off. Native Americans would experience no change. Under the RPA and

8. Id.
9. Id.
11. 55 SIMPLY STATED at 1 (1985). The English language is also misused in the private sector, where people with no incentive for miscommunications nevertheless produce horrendous writing. The IBM employee magazine THINK contains a section for displaying good examples of bad writing. Such examples are plentiful. One IBM employee wrote: “Congruent command paradigms explicitly represent the semantic oppositions in the definitions of the commands to which they refer.” 52 SIMPLY STATED at 2 (1985). Although this sentence has been separated from the entire document in which it appears, it is difficult to imagine a contextual setting that would make the sentence clear. Another employee, in a curious mixture of nouns, verbs, and similes, wrote: “I postulate the ball into your court and assume you will address my concerns ASAP adequately sizing the what have you we’ll need to wrangle some sense out of this. Let’s stop waffling and drive a peg through the head of this knotty key issue.” Id.
12. 65 SIMPLY STATED at 4 (1986).
13. Id.
WFV Alternatives, ranchers would have fewer AUM's, but all other groups would be better off. Only recreational day users would be better off under the AMN Alternative. There is negligible change under the CUR Alternative.

This paragraph was in the “summary” section of the EIS, which is theoretically the section that simplifies the rest of the EIS. A quick survey of the rest of the EIS disclosed that in fact this paragraph did simplify the EIS somewhat, since much of the EIS consisted of extremely complex tables and technical references.14

The second EIS we chose for our experiment was the Nez Perce National Forest Plan Final Environmental Impact Statement. We opened that document randomly to page II-171 and found the following paragraph:

In response to the below-cost timber sales issue, the discounted timber benefits are greater than the discounted timber costs and the associated road costs for the 150-year planning horizon (See Table II-30). This would indicate that the long-term financial returns of the timber program are positive, however, these overall values do not insure that below-cost sales have not been avoided. Timber sales are planned and scheduled in terms of how they fit into the comprehensive program for multiple use management on this Forest. The mix of outputs, associated costs, and benefits produced by the different alternatives is the result of selecting management prescriptions which most efficiently meet the objectives of the alternative. Cost efficiency was considered in (1) the development of prescriptions (See Appendix B, Section III and IV of the EIS) and (2) the FORPLAN model had a range of the management prescriptions to select from when determining an optimal solution for each alternative based on the objective of maximizing PNV. The timber harvest level in all alternatives is less than the harvest level for Maximum PNV benchmark which represents the most economically efficient mix of management prescriptions and resource outputs for the Forest.15

Our intuition told us that one would need not only a higher level of education than is currently held by the vast majority of citizens in the United States to read and understand these documents, but also some specialized knowledge of economics. To test our intuition, we ran these two passages through the readability tests on Grammatick, a com-

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14. The EIS, including the summary but excluding the abstract, table of contents, list of tables, list of figures, list of preparers, consultation and mailing list, appendices, and index, was 497 pages in length. The regulations of the CEQ provide that “[t]he text of final environmental impact statements... shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages.” 40 C.F.R. § 1502.7 (1988).

15. The length of this document, including the summary but excluding the table of contents, glossary, index, references, appendices, list of figures, and list of tables, was 413 pages.
merically available computer program.\footnote{\textit{Grammatick} checks documents for proper grammar, including use of active voice and split infinitives.} The first passage scored a 36 on the Flesch readability test (higher scores mean more readable documents). As we explain in Part II, infra, most state readability laws require a score of 40 or higher on the test for insurance documents. The Flesch-Kincaid grade equivalency test suggested that a reader would need at least a twelfth grade education to be able to read and understand the passage (the test does not account for some factors that increase the difficulty of reading such as acronyms and technical words).

The second passage scored a 23 (very difficult to read) on the Flesch test. The Flesch-Kincaid grade equivalency test concluded that the passage would require eighteen years of education to read and understand.

Can NEPA's requirement of informed public participation be satisfied with such documents? We think not.

II. THE CLARITY REQUIREMENT IN OTHER CONTEXTS

Many states have adopted laws requiring that specified documents, such as consumer contracts and insurance policies, be written so that they can be read and understood by people with a certain level of education, typically eighth grade. Some states require that ballot titles for initiatives be written plainly and concisely. And there is a small but growing body of jurisprudence addressing the need for plain English in communicating necessary information, such as the denial of social security benefits or the exclusion of certain illnesses from insurance policies. We may learn something about the utility of regulating language in EIS's by examining judicial opinions and regulatory attempts in these other contexts.

A. Measuring Readability

There are several standardized tests in the United States for measuring the readability of documents. Results of these tests are usually expressed by assigning a school grade equivalent score roughly approximating the level of education that would be necessary to read and understand a document. The most common tests are: (1) the Spache Readability Index, (2) the Dale-Chall Readability Index, (3) the Fry Readability Index, (4) the Raygor Readability Estimate, (5) the Flesch Readability Formula, and (6) the Gunning-Fog Index.\footnote{Two of these tests, the Flesch and the Gunning-Fog test, can be run on any WordPerfect document using the program \textit{Grammatick}.} Although the results obtained by applying different tests may vary to some degree, the tests collectively can demonstrate that a certain amount of education is necessary before a person could read and understand a particular document. For example, if all five of the tests showed that an EIS could only be read and understood by a person with a post-graduate college degree, this would suggest that the average citizen (who reads and understands at the eighth grade level) would probably have difficulty understanding the document.
B. Judicial Requirements of Clarity

Judges must frequently translate complex technical information into easily understood language which conveys the general meaning of the information in order to write opinions that can be read and understood by others with no scientific training. Judges as a group, then, seem particularly well-suited to the task of identifying language that is too technical, opaque, or misleading to satisfy the informational requirements of NEPA. In fact, the statement of basis and purpose accompanying the CEQ’s regulations explained the requirements for clarity in EISs by noting: “By way of analogy, judicial opinions are themselves often models of compact treatment of complex subjects.”

In Gottreich v. S.F. Investment Co., the court quoted an incomprehensible sentence from a lawyer’s appellate brief discussing how a legal duty would vary “relative to the juxtapositions of the real world environmental encasement of the two sides.” The court commented with frustration, “Briefs should be written in the English language!”

Judicial understanding of the need for plain English has begun to produce substantive results in cases where the constitution or a law requires that particular information be conveyed. For example, in David v. Heckler, the court found that notices of Medicaid eligibility were not sufficiently comprehensible to satisfy minimum standards of due process. Judge Weinstein’s description of the language in the notices is colorful and unambiguous: “The language used is bureaucratic gobbledegook, jargon, double talk, a form of officialese, federalese and insurancese, and doublespeak. It does not qualify as English.”

In Ponder v. Blue Cross of California, the court found that an insurance company was obligated to pay benefits to a policyholder, even though the policyholder’s condition was specifically excluded from the contract, because the exclusion was not conspicuous within the policy, and the language of the exclusion was not clear. If unclear language in an insurance policy were allowed to exclude coverage, the court found, “[p]olicyholders could only discover what they had bought with their premiums as their diseases were diagnosed and they found out, often to their sorrow, the true meaning of those mysterious words in their health insurance contracts.”

In a 1987 survey of judges and lawyers in which the respondents were asked to express a preference between passages written in traditional legal language and passages written in plain English, the plain English passages were preferred by margins that ranged from 71 to 91 percent. The fact that judges and lawyers are capable of distin-

19. 552 F.2d 866, 867 n.2 (9th Cir. 1977).
22. Id.
guishing between good and bad English suggests that making readability requirements mandatory would not be asking courts to do something they are not qualified to do. The difficulty comes in determining where to draw the line. At what point does misuse of the English language cause a document to become so unreadable that it cannot perform its intended function?

C. Legislative Clarity Requirements

State governments have been in the forefront of the movement to regulate the quality of information transfers in areas where such transfers are subject to abuse. For example, twenty-two states have adopted laws requiring that insurance documents be written so that they may be read and understood by a person with a particular grade school equivalent reading comprehension level (the specified level varies slightly from state to state). Each of these states specify that the Flesch test for readability is to be applied in determining the adequacy of particular documents. Other states require that ballot titles and consumer contracts be written in plain English; some of these states specify grade school equivalent levels for these documents, as well as for insurance documents.

The State of Oregon, for example, requires that all new group life and health insurance policies sold in the state achieve a score of 40 or more on the “Flesch test of reading ease” or a comparable test, and contain a table of contents or index if lengthy. The statute permits exceptions for policy language drafted to conform with the requirements of a law. The insurance commissioner may also allow a score of less readability if warranted. State building code provisions are supposed to be described in a publication that “shall be readable at the ninth grade level of reading, as determined by the [agency] director under one or more standard recognized readability formulas, including, but not limited to, the Flesch, Fry or Dale Chall tests.”

In a more voluntary mode, Oregon allows a consumer loan or purchase contract to boast a statement that it “meets Oregon plain language guidelines” if it:

(a) Uses words that convey meanings clearly and directly;
(b) Uses the present tense and active voice whenever possible;
(c) Primarily uses simple sentences.

Farm labor contractors must give each worker, at the time of hiring or earlier, a statement of the worker’s legal rights and remedies “in

24. See Appendix at 77-79.
25. See Appendix at 80-82.
27. Id. § 743.365(2)(f)(B).
28. Id. § 743.365.
29. Id. § 456.787(1).
30. Id. § 180.545(1). See also, Id. §§ 180.550, 180.540.
plain and simple language in a form specified by the commissioner [of the Bureau of Labor and Industries].”31 Furthermore, such statement must be not only in plain English, but in plain Spanish or whatever other language is normally used by the farm labor contractor to communicate with the workers.32

One might expect that Oregon only applies these standards to private industry, but such is not the case. The legislature has mandated reform in an area of particular impact of government on the lives of citizens: state income tax forms. The law requires that tax form instructions “shall have a total Flesch Reading Ease Score of 60 or higher.”33

The standardization of plain English requirements in these contexts suggests that such standardization requirements would work in other areas, such as NEPA documents. A more objective readability requirement would be consistent with the CEQ’s current regulations and with the judicial opinions that have addressed the issue.

III. THE CLARITY REQUIREMENT IN THE NEPA CONTEXT

The importance of NEPA’s informational requirements has been stressed by the courts in a variety of contexts. In Baltimore Gas and Electric Co. v. Natural Resources Defense Council, the Supreme Court emphasized that “NEPA has twin aims” — to effect agency decision-making and to “inform the public.”34 The Supreme Court ruled in Weinberger v. Catholic Action of Hawaii that informing the public was the paramount function of NEPA: There was no duty even to prepare a publicly available EIS when the subject matter (possible nuclear weapons in Hawaii) was exempt from disclosure to the public.35 The importance of public participation to the NEPA process emphasizes the importance of preparing documents that the public can read and understand.

31. Id. § 658.440(1)(f).
32. Id. § 658.440(1)(f).
33. Id. § 316.364(1). The statute defines the score as follows:
(a) “Flesch Reading Ease Score” means 206.835 - (x + y) where x equals average sentence length multiplied by 1.015 and y equals average word length multiplied by 84.6.
Id. § 316.364(2). “Sentence length” is the number of words per sentence. “Word length” is the number of syllables per word. Id. As an example, if the income tax form averaged seven words per sentence, that would produce an x factor of 7 x 1.015, or 7.01. If the form averaged 1.5 syllables per word, that produces a y factor of 1.5 x 84.6, or 126.9. The two together total 134.005. We take the constant figure 206.835 used in the Flesch formula, subtract this figure of 134.005, and get a Flesch score of 72.830. This would pass the test because it is higher than the score of 60 required by the Oregon statute. If the form used more complex words, averaging 1.75 syllables per word, that would boost the y factor to 148.05, would boost the combined x + y amount to 155.155, and when subtracted from the constant figure of 206.835 would produce a Flesch score of only 51.680 — insufficiently readable under Oregon law.

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The CEQ's regulations contain detailed requirements for public notification and involvement.36 The courts will invalidate EISs for inadequate public involvement.37 As the First Circuit has said, "Public oversight of government action... has flourished under NEPA," producing a "socially useful scrutiny."38 Indeed, the role of an EIS in informing the public is so central that it has even been held to grant legal standing to a litigant who could show no injury from a government action except the desire to have complete and accurate information on the environmental effects of the government action.39

The degree to which EISs and EAs are effective in communicating the environmental consequences of a proposal to the public and to decisionmakers may be difficult to measure. The effectiveness of any document in conveying information will depend upon a variety of factors, such as the length and presentation of the document, the use of graphics, the size of the print, and the knowledge and interest of the document's readers. The CEQ's regulations specifically address a number of these factors.

A. The CEQ and the Clarity Requirement

The regulations of the CEQ place a premium on succinct and clear language. When the CEQ decided to adopt regulations requiring clarity in NEPA documents, it did so because of widespread complaints concerning EISs from industry, environmentalists, and the general public. In its statement of basis and purpose accompanying adoption of the regulations, the CEQ observed:

The usefulness of the NEPA process to decisionmakers and the public has been jeopardized in recent years by the length and complexity of environmental impact statements.

*   *   *

Based on its day-to-day experience in overseeing the administration of NEPA throughout the Federal government, the Council is acutely aware that in many cases bulky EISs are not read and are not used by decisionmakers. An unread and unused document quite simply cannot achieve the purpose Congress set for it.40

36. See, e.g., 40 C.F.R. §§ 1506.6 (public involvement), 1503.4, 1502.9 (agency duty to respond in final EIS to public comments on draft) (1988).
37. See, e.g., California v. Block, 690 F.2d 753 (9th Cir. 1982) (failure to respond to public comments); Save Our Ecosystems v. Clark, 747 F.2d 1240 (9th Cir. 1984) (failure to provide 45-day comment period).
38. Grazing Fields Farm v. Goldschmidt, 626 F.2d 1068, 1073 (1st Cir. 1980) (government cannot go outside of EIS to use agency memoranda to support its claims of adequate environmental consideration).
The seriousness of the CEQ’s concern about the need for clear and understandable documents is reflected in the remarkably specific and persistent provisions addressing clarity and readability. In the introductory provisions the regulations state:

NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.41

The regulations go on to require that agencies “[i]mplement procedures to . . . reduce paperwork and the accumulation of extraneous background data . . . .”42 Even more explicitly, the regulations require that: “Environmental impact statements shall be concise, clear, and to the point . . . .”43

The CEQ’s regulations on reducing paperwork cross-reference a number of other provisions in the regulations, all of them having to do in some way with producing more readable documents. These provisions require that agencies reduce the length of environmental impact statements,44 prepare analytic rather than encyclopedic environmental impact statements,45 discuss only briefly issues other than significant ones,46 write environmental impact statements in plain language,47 follow a clear format,48 summarize the environmental impact statement,49 and “requir[e] comments to be as specific as possible.”50

The CEQ’s regulations go beyond simply encouraging agencies to use their best efforts to produce clear and readable documents. The regulations require:

Environmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements, which will be based upon the analysis and supporting data from the natural and social sciences and the environmental design arts.51

41. 40 C.F.R. § 1502.1(b) (1988).
42. Id. § 1500.2(b).
43. Id.
44. Id. § 1504(a) (citing §§ 1502.2(c), 1501.7(b)(1), and 1502.7).
45. Id. § 1500.4(b) (citing § 1502.2(a)).
46. Id. § 1500.4(c) (citing § 1502.2(b)).
47. Id. § 1500.4(d) (citing § 1502.8).
48. Id. § 1500.4(e).
49. Id. § 1500.4(h) (citing §§ 1502.12 and 1502.19).
50. Id. § 1500.4(l) (citing § 1503.3).
51. Id. § 1502.8 (emphasis added).
Had the Forest Service complied with this requirement and hired John McPhee or Barry Lopez to write its environmental impact statement on the effects of building roads and selling timber in roadless areas of the national forest system, it probably would have withstood the challenge to its RARE II EIS in California v. Bergland.\(^5\) 58 Certainly it would have avoided the comment by Judge Karlton in that case that the Forest Service would describe the Grand Canyon as "[c]anyon with river, little vegetation."\(^5\) 53 Of course, if John McPhee or Barry Lopez had been allowed to describe the impacts of the proposals to develop roadless areas, the public’s reaction to the proposals might have been even stronger than it was, and the decisionmakers might have had a more difficult time approving the proposals. Such clarity, however, is precisely what NEPA contemplates.

**B. Courts and the Clarity Requirement**

Only two courts have addressed the readability of EISs; each concluded that the EIS it was examining was not sufficiently clear to satisfy NEPA.

In *Oregon Environmental Council v. Kunzman*, the Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture prepared an EIS examining the environmental consequences of applying pesticides in populated areas to kill gypsy moths.\(^5\) 54 One of the principle concerns about the Department’s proposal was its effects on human health, and particularly the risk of cancer created by exposure to the pesticides proposed for use.\(^5\) 55

The Court in *Kunzman* issued a nationwide injunction against the spraying of chemical insecticides for the control of the gypsy moth on the ground that important parts of the EIS were ""hypertechnical, complex,"" and failed ""to communicate . . . to the persons entitled to be . . . informed."\(^5\) 56 According to the court, an EIS must inform ""the public and decisionmakers"" in ""clear and succinct language"" about the harms and health risks associated with the proposed actions.\(^5\) 57 The Court concluded that the lack of clarity was a critical defect, in light of the purposes of an EIS ""as an action forcing device"" to insure that the policies and goals of NEPA ""are infused into ongoing and proposed federal programs."\(^5\) 58

Unless the public and the decisionmakers are able to understand a worst case analysis, it is impossible for them to be aware of the potential risks.\(^5\) 59

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52. 483 F. Supp. 465 (E.D. Calif. 1980), aff’d sub nom. California v. Block, 690 F.2d 753 (9th Cir. 1982).
55. Id. at 659.
56. Id. at 665.
57. Id. at 660.
58. Id. at 659.
59. Id. at 665.
The court particularly emphasized that Dr. Richard Wilson, the Chair of the Department of Physics at Harvard University and a government witness, was "unable to decipher the precise meaning of [a] passage" containing the government's formula for determining the overall number of cancers to be expected from its program.60

The plaintiffs in Kunzman used several methods to attack the readability of the EIS. First, they asked an expert in readability of documents to apply standard, computerized tests to the EIS. Professor Mark Shinn found, using five separate standard readability tests, that one would have to have 17 years of formal education to read the EIS. Dr. Shinn testified that "the average Oregonian reads at the 8th grade level . . . the level at which many of the major sections of the newspapers . . . are written."61 Even the most readable passages "far exceed[ed] the estimated reading skills for the U.S. population and the State of Oregon."

Second, plaintiffs contacted Nicholas Yost, who had written the CEQ's "plain language" regulation, and put him on as a witness in the courtroom by transcontinental telephone.62 In his testimony Mr. Yost stressed that the regulations were intended to force agencies to use language "that could be understood by the average person." The plain language requirement, as the court later found, was not an "afterthought" or "trivial addition," but rather an effort "to correct a major shortcoming of EISs complained of by a widespread majority of persons surveyed by CEQ."63

Third, plaintiffs asked every witness for both the plaintiffs and the government how readable they found the EIS to be. Defense witness Dr. Edward Calabrese, a professor of toxicology, gave a typical response. When asked how readable he considered the EIS to be, he replied: "It certainly is not something that I would take to the bathroom with me."64

Although Kunzman was the first case to find that an EIS did not satisfy the CEQ readability regulations, it was not the first case to find

60. Dr. Wilson stated that he was unable to decipher the precise meaning of the passage, but given 15 minutes of study he could probably untangle the message. Kunzman, 614 F. Supp. at 665.
62. The "telephone trial" idea came from the court, which allowed plaintiffs to put on 9 of their 11 witnesses in this fashion. While seemingly unusual in federal court in the "lower 48," lawyers in the state of Alaska report that telephone trials are a standard practice in both state and federal courts in that largest of U.S. states. "Nobody even questions it. We all grow up doing it that way. It is the only practicable solution when the court may be in one town, the opposing lawyers 600 miles in one direction, and a witness 800 miles in another." Interview with Don Cooper, Director, Alaska Legal Services (February 4, 1986).
that an EIS did not satisfy NEPA because it was overly technical and obtuse.

In *Sierra Club v. Froehlke*, decided prior to adoption of CEQ's regulations on readability, the court explained why EISs must be readable to comply with NEPA:

All features of an impact statement must be "written in language that is understandable to non-technical minds and yet contain enough scientific reasoning to alert specialists to particular problems within the field of their expertise." The reason for this standard is that impact statements must assist in rational, thoroughly informed decision making by officials higher up in the agency chain-of-command, including the Congress, the Executive, and the general public, some of whom may not possess the technical expertise of those who evaluate the impact and prepare environmental statements. In this regard the present impact statement is deficient. 65

The EIS under consideration was found "deficient" on this ground. 66 The court stated further that an agency must "screen the impact statement for all words which might be less than fully understandable to an average individual," and gave various examples of words and phrases that were not understandable to the normal person, such as "estuarian," "eutrophication," "inundate brackish marsh vegetation," and "vegetative detrital material." 67 The court issued an injunction against the navigation development project until the Corps of Engineers fully complied with "all requirements of the National Environmental Policy Act." 68 Several other courts have put forth the proposition that EIS's must be readily understandable, although they did not invalidate on that basis the EIS's they were considering.69

IV. A PROPOSED TEST: EIS FOR THE AVERAGE CITIZEN

It is easy and amusing to be critical. But is reform possible and realistic? Can the government be held accountable for the quality of writing in its environmental documents? The short answer is yes.

The CEQ regulations and prior case law under NEPA already require that environmental documents be written in plain English. The courts, however, are not likely to adopt precise readability standards for evaluating the readability of NEPA documents if they can get by with *ad hoc*, case-by-case determinations. The absence of clear standards leaves government agencies and future litigants with a distinct

66. *Id.* at 1343.
67. *Id.* at 1343 n.215.
68. *Id.* at 1386.
lack of guidance. Sooner or later a case will present itself in which all the witnesses on one side say a document is eminently readable, while all those on the other side assert that it is incomprehensible to the lay person. In that case, courts will have to make some difficult determinations on the appropriate standard for readability.

To add emphasis to the importance of the plain language requirement, and to clarify precisely what the requirement means for NEPA documents, the CEQ should amend its regulations to specifically require that NEPA documents be written so that at least one-half of the public can understand them. To put it another way, EISs and EAs should be written at the mean reading level of the citizen, as shown by standard readability tests. As we have seen, this requirement is already in effect, through state “plain language” laws, for a variety of complex documents.

It may be argued that only a more educated, perhaps professional, class of citizens actually critique environmental impact statements and therefore EISs need only be written for these professionals. This reasoning is based upon the assumption that NEPA didn’t really contemplate the public commenting on EISs, but contemplated only professionals commenting. Currently, only professionals (and not many of them) can read EISs because of the jargon, complex sentences, and general denseness. To suggest that this is good enough assumes that all members of the public are adequately represented by organizations having a staff that examines EISs, a proposition that is absurd on its face. Furthermore it is reasonable to assume that to the extent NEPA documents are reviewed only by professionals, that is a result of the complexity of the document. If this is so, then a clarifying document will result in greater public participation.

It might also be argued that the task is impossible, that environmental documents, by the very nature of their subject matter, cannot be made readable at an eighth grade level. Readability at an eighth grade level, however, does not mean understandable by 14-year-olds. The standard tests for readability only seek to measure the complexity and length of sentences and words, not the complexity of the thoughts expressed therein. Many citizens of the world who cannot read at all are nevertheless capable of understanding, for example, that a chemical insecticide may both kill mosquitoes and ultimately poison their bodies. That concept is comprehensible — and can be stated without obfuscation if an agency wishes to do so. Some citizens might choose to kill the mosquitoes, regardless of the long-term risks, just as they choose to smoke cigarettes. The only question is whether they should be told, in plain terms, what the choices are. NEPA directs agencies to present such choices, and their consequences, to the public and decisionmakers. That task is not as difficult as some agencies have made it.

CEQ would contribute greatly to the success of the EIS process if it would amend its rules to provide that EISs, like other important public
documents subject to readability requirements, must be written so that they may be understood by the average citizen.

V. CONCLUSION AND POSTSCRIPT

NEPA's informational purposes cannot be met by documents that contain necessary substantive information but bury that information in overlong documents filled with dense and technical verbiage. On the occasion of NEPA's 20th anniversary, we urge CEQ to strengthen its regulations by promulgating enforceable standards governing the readability of NEPA documents.

We could not resist the temptation, after this article was written, to run it through the readability tests available on Grammatick. The article scored a 33 on the Flesch test, and the Flesch-Kincaid grade equivalency test showed that readers of this article would need fifteen years of education to read and understand it. By way of explanation for the apparent discrepancy between what we say and what we do, we offer that the article was written for a specialized audience.
Appendix: State Readability Laws

Twenty-two states have adopted statutes prescribing use of the Flesch Readability Test for at least some insurance policy forms. These statutes require that policy forms achieve a minimum readability score (a higher score is easier to read) before they are approved for use. Most of these statutes allow the head of the state insurance department to substitute another accepted readability test or lower the minimum score under certain circumstances. Some even provide for waiver of this requirement completely.

Standard exemptions provided by statute may include (1) policies subject to federal jurisdiction, (2) group policies (often with a minimum of 1000 policyholders), (3) group annuity contracts that fund pension, profit sharing, or deferred compensation plans, (4) forms used to convert, add to, or change a provision in an exempt contract, and (5) renewal of policies issued prior to the effective date of the act. Most statutes permit the use of non-English language forms if the insurer certifies that the policy is translated from an English language policy which does meet the readability standard.

The statutes requiring use of the Flesch Test, the minimum score, application, and significant provisions are: ARK. STAT. ANN. §§ 66-3251 to 3258 (1980) (40; life and health; minimum type size; table of contents or index if more than 3000 words or three pages; exemptions above); CONN. GEN. STAT. ANN. §§ 38-68s to x (West Supp. 1985) (45; automobile, dwelling, life, health, annuity; minimum type size; table of contents if more than 3000 words or three pages; no unnecessarily long, complicated, or obscure words or sentences; section titles must stand out; exemptions above); DEL. CODE ANN. tit. 18 §§ 2740 to 2741 (Supp. 1984) (40; automobile; other readability rules and regulations promulgated by the commissioner; “readable by person of average intelligence and education”); FLA. STAT. ANN. § 627.4145 (West 1984) (45; all types; table of contents if more than 3000 words or three pages; no unnecessarily long, complicated, or obscure words or sentences; section titles must stand out; “policy holder shall have the right to a readable policy”; exemptions above); GA. CODE ANN. § 56-324 (Supp. 1985) (40; life, accident, and sickness; simplified form, logically arranged; other readability and regulations promulgated by commissioner; includes coverage booklets distributed to group insureds); HAW. REV. STAT. § 431A (Supp. 1984) (40; life, disability, homeowners, personal auto; minimum type size; table of contents if more than 3000 words or three pages; exemptions above); IND. CODE ANN. §§ 27-1-25-1 to 27-1-26-12 (Burns 1986) (40; life and health; minimum type size; table of contents or index if more than 3000 words or three pages; exemptions); ME. REV. STAT. ANN. tit. 24A §§ 2438 to 2445 (Supp. 1985-86) (50; life, health, casualty, property, automobile; minimum type size; table of contents or index

1. FLA. STAT. ANN. § 629.9641 (West 1984).
of more than 3000 words or three pages; exemptions above); MASS. ANN. LAWS ch. 175 § 2B (Law. Co-op. Supp. 1985) (50; all types delivered to over fifty policy holders; minimum type size; table of contents or index; organization must be “conducive to understandability of the form”; exemptions above); MINN. STAT. ANN. § 72C (West Supp. 1985) (40; automobile, homeowners, life, accident, health; minimum size type; must be “written in language easily readable and understandable by a person of average intelligence and education considering (1) simplicity of sentence structure and shortness of sentence, (2) extent of use of commonly used and understood words, (3) use of legal terms, (4) extent of references to other sections and provisions, (5) definitions incorporated into the text, and (6) additional factors the commissioner may prescribe; specified provisions for a cover sheet; exemptions above); MONT. CODE ANN. §§ 33-15-321 to 329 (1985) (40; life, disability; minimum type size; table of contents or index if more than 3000 or three pages; exemptions above); NEV. REV. STAT. §§ 687B.122 to .130 (1985) (40; life and health; minimum type size; table of contents or index if more than 3000 words or three pages; must not contain any “title, heading, or other indication of its provisions which is misleading, or is printed in such size or type or manner of reproduction as to be difficult to read”; exemptions above); N.J. STAT. ANN. §§ 17B:17-17 to 17-25 (West 1985) (40; life, health, annuity; minimum type size; table of contents if more than 3000 words or three pages; exemptions above); N.M. STAT. ANN. § 59A-19 (1985-86) (40; life, health; minimum type size; table of contents or index if more than 3000 words or three pages; exemptions above); N.Y. INS. LAW § 142-a (McKinney Supp. 1984-85) (45; annuity, life, accident and health, automobile, homeowners; minimum type size; table of contents or index if more than 3000 words or three pages; shall be written in a “clear and coherent manner, and wherever practicable use words with common everyday meanings to facilitate readability and to aid the insured or policyholder in understanding the coverage provided”; exemptions above); N.C. GEN. STAT. §§ 58-364 to 372 (Supp. 1981) (50; automobile, life, accident, health, homeowners; minimum type size; index; exemptions above); N.D. CENT. CODE §§ 26.1-37-09 to 12 (Supp. 1985) (credit life and health) and §§ 26.1-36-13 to 16 (Supp. 1985) (accident and health), and §§ 26.1-33-29 to 32 (Supp. 1985) (life) have identical requirements (40; minimum type size; table of contents if more than 3000 words or three pages; exemptions above); OHIO REV. CODE ANN. §§ 3902.01 to .08 (Page Supp. 1985) (40; life and annuity, sickness and accident, credit disability, minimum type size; table of contents or index if more than 3000 words or three pages; exemptions above); OR. REV. STAT. § 743.350 to .370 (1983) (40; life and health, minimum type size; table of contents or index if more than 3000 words or three pages; exemptions above); S.D. CODIFIED LAWS ANN. § 58-11A

4. Disclosure authorization forms used by the industry must also be “written in plain language.” OR. REV. STAT. § 746.630(1)(a) (1985).
Six states have adopted statutes (almost identical to each other) which are more subjective than the Flesch Readability Test. Four states prohibit (or direct the head of the department to disapprove) a policy form “[i]f it contains [or incorporates by reference] [where such reference is permissible] [any] inconsistent, ambiguous, or misleading clauses, or [contains] exceptions and conditions [which] [unreasonably or] deceptively affect the risks purported to be assumed” or if it “[has] any title, heading, or other indication of its provisions which is [misleading or likely to mislead].” ALA. CODE § 27-14-9 (1977); ALASKA STAT. § 21.42.130 (1984); IDAHO CODE § 41-1813 (1977); KY. REV. STAT. ANN. tit. 36 § 3611 (West Supp. 1984); UTAH CODE ANN. § 31-19-10 (1984). Two other states have similar statutes which omit the language banning policy forms with titles, headings, and other indications likely to mislead. ILL. ANN. STAT. ch. 73, para. 143.(2) (Smith-Hurd Supp. 1985); MICH. COMP. LAWS ANN. § 500.2236(3) (West 1983).

Three states allow the Insurance Commissioner to approve simplified insurance forms notwithstanding any other provision of law. MD. ANN. CODE art. 48A, § 490D (1979) and WYO. STAT. § 26-15-111 (1983) apply to all types of insurance. R.I. GEN. LAWS § 27-5-9.1 (Supp. 1985) permits approval of simplified forms for fire insurance only.

Several states have authorized administrative agencies to promulgate specific readability rules. ARIZ. REV. STAT. ANN. § 20-1110.01 (Supp. 1985-86) directs the director to “promulgate rules and regulations governing the form and readability of various types of insurance policies.” See, ARIZ. COMP. ADMIN. R. & REGS. R4-14-216. Pursuant to authority under S.C. CODE ANN. § 38-3-61 (Law. Co-Op. 1985), the Chief Insurance Commissioner for South Carolina has promulgated readability rules which adopt the Flesch Test, codified at S.C. CODE ANN. § R69-5.1 (Law. Co-op. 1985) (40; personal insurance; minimum type size; table of contents or index if more than 3000 words or three pages; exemptions above). An insurer who violates these standards is subject to criminal penalties and loss of license.5 TEX. INS. CODE ANN. § 3.70-1 (Vernon 1981) authorizes the Insurance Board to promulgate rules necessary “to provide for reasonable standardization, readability and simplification of terms” for accident and sickness insurance policies. VT. STAT. ANN. tit. 8 § 4902 (1984) directs the commissioner to promulgate rules in which he may require a “clear and concise outline summarizing and clarifying” the policy and he “shall establish standards for format, content and distribution.”

WASH. REV. CODE ANN. § 48.30-320 (1984) directs automobile insurers (upon request) to notify customers in writing of the reasons for cancelling, denying, or failing to renew most consumer policies. This provision also applies to actions by insurers which are adverse to handicapped persons based upon that handicap. Such writing “shall be phrased in simple language which is readily understandable to a person of average intelligence, education, and reading ability.” WIS. STAT. ANN. § 631.22 (West Supp. 1985-86) requires consumer policies to be “coherent, written in commonly understood language, legible, appropriately divided and captioned by its various sections and presented in a meaningful sequence.” The commissioner is directed to disapprove forms that violate this direction or that are misleading, obscure or unnecessarily verbose or complex. WIS. STAT. ANN. § 631.20(2) (West 1980 & Supp. 1985-86). He is also directed to promulgate rules establishing standards enforcing this section.

Seven states have consumer protection readability statutes. Four of these require that various consumer contracts “be written in a clear and coherent manner using words with common everyday meanings [and] appropriately divided and captioned.” HAW. REV. STAT. § 487A (Supp. 1984) (consumer transactions under $25,000); ME. REV. STAT. ANN. tit. 10 §§ 1121 to 1126 (1980 & Supp. 1985-86) (consumer loans under $10,000); MINN. STAT. ANN. §§ 325G.29 to .36 (West 1981 & Supp. 1985) (consumer contracts under $50,000); N.Y. GEN. OBLIG. LAW § 5-702 (McKinney Supp. 1986) (consumer contracts).

CONN. GEN. STAT. ANN. § 42-151 to 158 (West. Supp. 1985) provides that consumer contracts must meet either subjective plain language tests or alternate objective tests. Plain language tests are met if the contract substantially uses short sentences and paragraphs, everyday words, personal pronouns or actual or shortened names of parties, simple and active verbs, readable type size, contrasting ink color, conspicuous section headings, layout and spacing with separate sections and borders, and “clear and coherent” language and organization. The alternate objective tests are conjunctive and include: average of less than seventy-five words per paragraph with a maximum of 150, average of less than 1.55 syllables per word, use of personal pronouns or the actual or shortened names of the parties, minimum size type, minimum spacing, underlined or bold faced section captions, and an average of no more than sixty-five characters per line.

N.J. REV. STAT. § 56:12-2 (Supp. 1985) requires that consumer contracts “be written in a simple, clear, understandable and easily readable way” taking into account confusing cross references, length of sentences, double negatives and exceptions to exceptions, confusing or illogical order, Old and Middle English words, and Latin and French phrases.

6. CONN. GEN. STAT. ANN. § 42-152.
7. Id. § 42-152(b).
8. Id. § 42-152(c).
1990

**Plain Talk: Making NEPA Work**

**OR. REV. STAT.** § 180.540 (1985) provides a mechanism whereby a seller or extender of credit may submit certain contract forms to state agencies to obtain review and a declaration that the forms comply with non-enforceable readability standards. In determining compliance, the agency is to consider the extent to which the form uses words that convey meanings clearly and directly, uses present tense and active voice, uses simple sentences, defines or explains words in the text, explains at the beginning that it is a contract between parties, uses margins, and uses section headings and a narrative format to locate provisions.\(^{10}\) If the agency determines compliance, the contract may state "The form of this contract meets Oregon plain language guidelines."\(^ {11}\)

Thirteen states have statutes prescribing readability requirements for measures submitted to a vote of the people. These statutes and significant features are: **CAL. ELEC. CODE** § 3572 (West. Supp. 1986) (voter pamphlet to include an impartial analysis "written in clear and concise terms which will be easily understood by the average voter, and shall avoid the use of technical terms wherever possible"); may contract with professional writers and educational specialists to ensure; review by a special five member committee with one education specialist, one bilingualist, and one professional writer "to confirm its clarity and easy comprehension to the average voter); **FLA. STAT. ANN.** § 101.161 (West Supp. 1985) (substance "shall be printed in clear and unambiguous language on the ballot"); **ME. REV. STAT. ANN. tit. 21A, § 906.6 (West Supp. 1985-86) (ballots must set out the narrative in "clear, concise and direct language" with Secretary of State to promulgate rules for drafting questions "which will attain that standard of readability"); **MONT. CODE ANN. §§ 13-27-312; 13-27-315 (1985) (ballots to contain a statement of purpose, not to exceed 100 words, "in plan, easily understood language"); **NEB. REV. STAT. §§ 32-707; 32-707.01 (1984) (ballot to contain statement "in clear [and] concise language explain[ing] the effect of a vote for [and a vote] against"); **N.J. STAT. ANN. § 19:3-6 (1964) (ballot questions "shall be presented in simple language that can be easily understood by the voter" and if not, a statement shall be added to the ballot interpreting the measure); **N.Y. ELEC. LAW** § 4-108 (McKinney 1978) (both an abstract transmitted to the local election board explaining the measure and the actual form of the measure appearing on the ballot must be written "in a clear and coherent manner using words with common and everyday meanings"); **OKLA. STAT. ANN. tit. 34 § 9 (West Supp. 1985-86) (ballot title not exceeding 150 words "shall explain in basic words, which can be easily found in dictionaries of general usage, [and] shall not contain any words which have a special meaning for a particular profession or trade not commonly known to the citizens" and shall be written at the eighth grade reading level); **OR. REV. STAT.** § 250.039 (1985) (Secretary of State to adopt minimum readability standards for ballot titles\(^ {12}\)); **R.I. GEN. LAWS** § 7-5-111 (Supp. 1985) (Secretary of State author-  

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10. **OR. REV. STAT.** § 180.545(1).  
11. Id. § 180.550.  
12. **OR. ADMIN. R.** 165-14-045 requires a minimum Flesch Test score of 60.
rized to rephrase the question so as to “clearly appraise the voters of the questions to be voted on”); S.C. Code Ann. §§ 7-13-2110 to 2120 (Law. Co-op. 1977) (Constitutional Ballot Commission created to determine if proposal (Constitutional Amendment only) submitted to the people is “of such a nature that it might not be clearly understood by the voters” and if so, to place on the ballot a simplified or detailed explanation); Tenn. Code Ann. § 2-5-208(f)(2) (1985) (if text of question is over 300 words it shall be preceded on the ballot by a summary of not more than 200 words “written in a clear and coherent manner using words with common everyday meanings”); Wash. Rev. Code Ann. §§ 29.27.076 (Supp. 1986) (required explanatory notices of proposed Constitutional Amendments and laws authorizing state debts “shall be prepared in clear and concise language and shall avoid the use of legal and other technical terms insofar as possible.”13).