information
renaissance

OEI Docket
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, DC 20460

August 16, 2004

Re: Docket ID No. OEI–2004–0002

Attached are the comments of Information Renaissance submitted in response to the Federal Register Notice of July 16, 2004 on Public Access to Federal Rulemaking Through the Internet. Thank you for this opportunity to comment on the eRulemaking Initiative.

Sincerely,

Robert D. Carlitz

Executive Director
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Public Access to Federal Rulemaking Through the Internet
Information Renaissance Comments

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(August 16, 2004)

We appreciate this opportunity to comment on the eRulemaking Initiative. This Initiative provides a major opportunity to enhance public participation in rulemaking, a government activity that affects everyone in the country.

Information Renaissance is a foundation-funded non-profit corporation that works to facilitate public involvement in government via the Internet.

> *Our objective for online rulemaking is the creation of a system that facilitates more substantive understanding and broader involvement of the public.*

Information Renaissance's work on rulemaking dates to 1996, when we created an electronic docket for the Federal Communication Commission's "E-Rate" rule and conducted an online national dialogue with teachers, librarians, industry people and agency staff as an adjunct to the Notice and Comment process. Since then we have conducted online dialogues on other policy issues[1] and have explored in depth how best to implement online rulemaking. In the period 2000-2004 we have published articles[2] and prepared presentations and memoranda for the General Accounting Office[3], the Senate Committee on Governmental Affairs[4] (in connection with section 206 of the E-government Act), the Office of Management and Budget[5] and EPA's eRulemaking team.[6]

[1] Online at http://www.info-ren.org/what/dialogues_projects.shtml.
[2] Barbara H. Brandon and Robert D. Carlitz, in Congressional Internet Caucus (2001). E-Government Briefing Book. Online at http://www.netcaucus.org/books/egov2001/pdf/OnlineRu.pdf; Barbara H. Brandon and Robert D. Carlitz, Administrative Law Review **54**: 1421-1478 (2002); Robert D. Carlitz and Rosemary W. Gunn, Government Information Quarterly **19**:389-405 (2002).
[3] March 2000.
[4] July 2001.
[5] August 2001, December 2002 and January 2004.
[6] April 2002, November 2002 and March 2003.

The eRulemaking Initiative seeks to "expand public understanding and involvement in the rulemaking process." Therefore the development of the Initiative should itself be a transparent process, inviting informed public input at every stage.

We also believe increased public engagement will produce better information for rulewriters and decision makers, and will lead to rules that are more effective, workable and enforceable. Hence we welcome the present set of public hearings and the online dialogue announced in the Federal Register on July 16, 2004. That announcement also invites comments on the three major parts of the eRulemaking Initiative: Regulations.gov, the Federal Docket Management System and the Rulewriter Toolbox. Our comments will address each of these parts in sequence, preceded by remarks on important Process Issues that affect the Initiative as a whole.

We are pleased to see many elements that we have previously recommended among the features planned for the Federal Docket Management System, as described in the eRulemaking team's PowerPoint presentation in the present docket (document number OEI-2004-0002-0006). The numbered paragraphs below list features that we regard as important. Some of these features are mentioned in the eRulemaking team's presentation, but it is not yet clear exactly how they will be implemented.

The elements we see as most vital are public involvement (#1), to improve information flows and increase engagement, trust and legitimacy; collaboration (#2), to assure a useful system; Web services (#19), to provide a system interface for other machines; and interoperability (#21), to increase utility and provide cost effectiveness and sustainability.

Process Issues. An important goal of the eRulemaking Initiative has been to enhance public involvement in rulemaking. Ironically, prior to the July 16, 2004 Notice in the Federal Register, the Initiative has not involved the public in any significant manner. We trust that the public hearings, online dialogue and solicitation for comments contained in that Notice mark the beginning of a new approach that will continue as the project evolves and expands. We have several comments on this process.

1. ***Public involvement in rulemaking.*** *Assure that the eRulemaking system will help an expanded set of participants to understand rulemaking and take part in it.*

   In addition to clear instructions for use, the site must include a basic explanation of the rulemaking process: people new to the process need to understand what rulemaking is about, how the comment process works, and how they can constructively participate.

   The Initiative should monitor its success in meeting user needs—for example (as described at the public hearing on August 12, 2004 in Washington, D.C.) by using help desk queries or built-in feedback of the type "Did your search find what you were looking for?" (to the extent permitted by the Paperwork Reduction Act).

Members of the public often rely upon intermediary organizations for their participation in rulemaking. Hence the eRulemaking team will need to exchange information with these organizations so that the capabilities of the system will match the work processes of these groups.

2. ***Collaboration and consultation.*** *System features should be developed with the ongoing involvement of participating agencies and all interested and affected members of the public.*

   Rulemaking is by its nature a collaborative effort of people inside and outside government. Development of a successful eRulemaking system deserves the same level of collaboration among agency personnel, external stakeholders and the broader public. Indeed, collaboration is key to the development of the standards, protocols and processes to be used in the Initiative.

   Information on the eRulemaking Initiative has been somewhat sketchy and slow to appear. The PowerPoint presentation (OEI-2004-0002-0006) is the most complete description we have seen. Additional information on system architecture, implementation details, the project's business plan, and the contractor's statement of work would be useful to those who intend to use the system and will need to modify their computer systems for compatibility and interoperability.

   The July 16, 2004 Federal Register Notice is a good start towards seeking out current and potential participants in rulemaking and exploring their needs for system features and functionality. The short timeframe and limited outreach for these steps—with scheduling in the depths of summer—may limit initial involvement. As the system evolves, the system architecture and features should be made available, and public comment should be invited. This should be done on an ongoing basis, since needs will evolve as public understanding of rulemaking grows. Mechanisms should be adopted to demonstrate that public input is being used to shape the Initiative.

3. ***Best practices.*** *The eRulemaking Initiative should support innovation and showcase the best government usage of information technology.*

   The eRulemaking Executive Committee should develop mechanisms to identify best practices among existing electronic docketing systems in the federal and state government and to incorporate these features in the system currently under development. A specific goal of the eRulemaking Initiative should be to maintain an innovative environment that facilitates experiment and innovation, supports new procedures, evolves with advances in agency practice, and disseminates information on best practices.

Regulations.gov. The eRulemaking Initiative was launched in January 2003 with the rollout of the regulations.gov Web site, where members of the public can learn when most rulemakings are open and submit comments. This site will be replaced by the Federal Docket Management System, discussed below; accordingly we will not use numbered paragraphs to propose new features for regulations.gov but will only comment on existing ones.

Many people have visited the site, suggesting that there is indeed a demand for information on upcoming rules.

However, relatively few have used the site to submit comments. We believe there are several reasons for this. Initially, Notices of Proposed Rulemaking had failed to reference regulations.gov, but this problem is being addressed. The site itself contains little information for those new to rulemaking; it provides only browser-based editing tools, which are rudimentary in function; typed-in comments are severely limited in length; and there are no guidelines for attached files, so users may submit materials that will be unreadable or unusable by the agency to which they are submitted.

Regulations.gov does not have the features experienced commenters may expect, nor does it offer much help for those new to rulemaking.

Therefore once they locate a rulemaking of interest, commenters may be inclined to move on to a more fully-featured agency site, where they can access the relevant docket directly.

If regulations.gov is merely a stopgap measure, these are not serious issues. However, if the longer-term solution has some of the same limitations, it could affect the system's ability to deal with a larger public audience.

Federal Docket Management System. This is the heart of the eRulemaking Initiative. Logically it consists of three components: a public input mechanism to accept comments in electronic or paper form, a storage mechanism to house the comments in a secure and easily retrievable form, and an output mechanism to allow system users to select elements of a docket for online viewing or to download for offline analysis.

Little information has been provided to the public to describe how this system will be implemented.

Without a description of the system's architecture, it is hard to offer detailed comments on features that the system might feasibly incorporate. Nonetheless we will list features that we regard as desirable and urge EPA and its contractors to design the system with an architecture capable of incorporating these features. Since the tenor of EPA presentations suggests that the present EPA EDOCKET system will simply be modified and extended for government-wide use, some of our comments will refer explicitly to features or performance characteristics of the EDOCKET system.

Features that should be implemented immediately. First we consider a set of "simple features" that any useful system should incorporate. These should be implemented in the first cycle of development for the Federal Docket Management System.

4. ***Usability.*** *The system should be accessible and efficient to navigate.*

   In addition to compliance with Section 508 of the Rehabilitation Act, the Web site used for individual access to the system should be easy to navigate for those who are inexperienced with rulemaking or computer neophytes. To this end, thorough usability testing should be carried out before the site is opened. This testing is ideally done in a laboratory setting with volunteers whose success in using the system is monitored as they work. Usability testing should also be carried out with agency personnel.

5. ***Searching.*** *Searches should be flexible, thorough and reliable.*

   Search capabilities are a key element in user satisfaction. The system's search capabilities should be "enough" without providing "too much." That is, the system needs to locate dockets and documents of interest—whether by formal docket numbers, agencies involved, keywords, dates or authors—while filtering results to avoid duplicate or irrelevant hits. While usability testing will also help here, search capability depends as much on the way materials in the system are marked up as on features of the search engine. The system should use XML markup (an industry standard for the presentation of metadata) with a schema (or metadata dictionary) determined by consultations among agency personnel and external stakeholders.

   The EDOCKET system provides a "simple search" and an "advanced search," similar to what is promised for the eRulemaking Initiative. The number of fields available in the advanced search is limited, notably lacking the capability to find comments on the basis of who has submitted them. We have found inconsistencies between the simple and advanced searches, with documents showing up in one but not the other. And frequently our searches have returned no documents, with the search engine timing out before giving a response.

6. ***Capacity.*** *The system should be reliable and responsive, with real-time performance monitoring available to all users.*

   Given the eRulemaking Initiative's ambitious goal of serving all government rulemaking agencies through a centralized portal, it is important that server capacity and bandwidth be adequate for the task, and that redundancy be built into key components to guarantee close to 100% uptime. It is also essential to have sufficient data security that agencies can safely discard their paper dockets, if they choose, and rely upon the central system as a secure repository for official administrative records supporting rulemaking.

   A real-time monitoring feature could allow display on the public Web site of system status and performance. This would assure users that problems they might be having in reaching the system were problems with their local equipment or network connection, and not problems with the federal system itself.

7. ***Indices.*** *All material in the system should be listed in static indices.*

   An inadvertent feature of many database-backed Web sites is the creation of a "hidden Web"—materials that are accessible only on Web pages generated dynamically (and therefore temporarily) from database queries. Such materials may not be available for indexing by the robots that underlie public search engines. EPA's EDOCKET system is itself deficient in these respects: since there are no static indices, materials in the system are not available through public search engines; and since there is no author index for submitted comments, it is hard for users to locate comments submitted by a particular individual or company.

8. ***Uniform Resource Identifiers.*** *Every item in the system should have a permanent "bookmarkable" indentifier.*

   Each docket item should be labeled with a unique and permanent Uniform Resource Identifier (URI) to provide a cross-reference to the item. This can be used to access the item from other applications (or within the Federal Docket Management System itself). Given a URI, users can create "bookmarks" or "favorites" for specific items of interest—for example, a docket or an item in a docket. The EDOCKET system lacks this capability, perhaps because of the way its pages are dynamically generated. Bookmarks created in EDOCKET do not take the user back to the page of interest but to some page logically higher in the system.

9. ***Active notification.*** *Alerts should be based on criteria similar to those of advanced searches and distributed by e-mail and RSS feeds.*

   Active notification is becoming a standard feature of many Web sites. To attract and maintain the interest of potential users, it is essential that the Federal Docket Management System should have mechanisms to alert them to new material of interest. This can be implemented through simple mailing lists, where users can sign up with their e-mail address and keywords for desired topics. As with search capabilities, users will need a filtering mechanism to prevent inundation with a flood of irrelevant material. Modern technologies such as RSS feeds should also be used to implement this type of service. (This technology is commonly employed by newspaper sites and Web logs to distribute headlines on selected topics, with links to the full articles.)

10. ***Background material.*** *The system should facilitate the provision of background information on each rule.*

    To encourage informed comments, every rulemaking docket should include background material adequate to introduce new participants to the issues under discussion, with references to additional resources. This need will become more urgent in an electronic rulemaking system, since the audience of participants will likely broaden, requiring more assistance to understand the issues. In the longer term, background materials should be presented in the form of interactive tutorials, making effective use of the multi-media capabilities of the Internet. While providing such information will be a function of individual agencies, the

system should make this easy for them. Cross-agency criteria for background information should be developed and made public.

11. ***Editing and formatting of comments.*** *The system should present all user comments in an attractive manner.*

    As noted previously, browser-based editing tools are severely limited in their capabilities. In addition to the inconvenience, editing tools that are too rudimentary could in effect create two tiers of comments. Comments submitted through a simple online form could carry, however unintentionally, a subliminal cue to federal agencies that these are "second-class" comments; first class comments would be those prepared with word processors in the time-honored manner and submitted on paper or as attached files. Such a dichotomy would not serve the interests of the broad public or the agencies very well.

    To encourage the rapid adoption of electronic submissions and to avoid a two-tier system, the new eRulemaking system should generate well-organized and readable comments. There are several ways to accomplish this: (a) facilitate the use of attached files, with clear instructions as to allowed formats and verification of uploaded files, so that commenters can prepare their submissions offline using the same tools they might use for paper-based comments; (b) provide an attractive standard formatting template, so that comments prepared with a simple online form will have an appearance similar to those prepared with a word processor; or (c) develop a Java applet (or equivalent technology) to provide advanced editing capabilities through browser plugins.

12. ***Follow-up and tracking.*** *Users should be able to follow the progress of a rule and have realistic expectations regarding their own comments.*

    Each comment should be acknowledged automatically, with a link to where it is housed in the system (its permanent URI) and a summary of the metadata attached to the submission. When a comment is acknowledged, the user should be reminded of the process that leads to the final rule, with an opportunity to register for further notification of the status of this activity.

    Users should be able to track the progress of any rule through the system. Agency management will also find this capability valuable for keeping the whole process on schedule.

<u>Features that should be developed for subsequent versions.</u> Next we address some "advanced" features. It may not be practical to include these features in the first versions of the Federal Docket Management System, but it is important that initial design choices do not preclude their later development. If funding for these features is not immediately available, the system should include software "hooks" that anticipate their eventual adoption.

13. ***Structured input forms.*** *Comments on portions of a rule or responses to specific questions should be tagged for efficient and accurate processing, if desired by the commenter.*

    Online comment forms should be designed to make it possible to link portions of a comment to specific sections of the Notice of Proposed Rulemaking, as

desired. Similarly, when the agency poses a set of questions in its Notice, the comment form should make it easy to answer question-by-question. Some commenters may not choose to avail themselves of these features, and it should be clear that usage is not mandatory. However, allowing some degree of structure will help many commenters to organize their contributions clearly. This will both facilitate agency processing of the information received and help assure that the submission is interpreted as the commenter intended.

14. ***Open modeling.*** *The system should support access to models that generate the data under discussion.*

    Many technical discussions are based on computer models. These may be agency models or models of commenters. Previously the results of such models may have been cited in proposed rules or comments, but it has not generally been possible for others to experiment with the models and see how their results change with different input data. Internet-based rulemaking can enable interactive access: if the electronic docket incorporates portals to modeling engines, these models can be exhibited online. Even if proprietary model-builders are hesitant to disclose the algorithms that underlie their models, others can still try them out as "black boxes," observing the data entered and the results, but not the intervening mathematical operations. This will permit a more substantial discussion of the models' results and meaning.

15. ***Multi-media.*** *Multi-media submissions should be supported and adequately indexed.*

    An Internet-based docket can and should include audio and video clips, such as recordings of public hearings. As with open modeling, these materials can easily be made available online. We would caution that inclusion of such materials should not compromise a user's ability to search the docket. For example, when hearings are archived in audio or video format, either searchable transcripts should be made available or the site should employ technologies that provide searchability for these materials.

16. ***Reply comments.*** *The Initiative should support reply comment periods.*

    The availability of comments online makes it easier for participants in a rulemaking to comment on each other's submissions. This does not help for comments that are submitted at the last minute of a comment period. We believe rulemakings should routinely include a separate reply comment period (as is currently done by the Federal Communications Commission) to increase interactions among commenters. A reply comment period can help commenters to develop clear alternative opinions on an issue, offer criticism of the viewpoints expressed and indicate where compromises may be possible; this in turn will help an agency's rulewriters and decision makers.

17. ***Online dialogue.*** *The electronic docket should be able to incorporate threaded discussion forums.*

    For rules of broad public interest, we believe it would be useful to go beyond reply comments and to encourage an online dialogue among interested

stakeholders. Dialogues should be structured for efficiency and moderated to maintain the structure and assure an orderly process. The design of such a process will require substantial discussion and experimentation, but the new eRulemaking system should be capable of housing this type of material, while maintaining the original threaded structure of the event. A single data file or database entry, as used for ordinary comments, would probably not suffice for this purpose.

18. ***Continuous electronic record.*** *Users of the system should have seamless access to materials related to the docket.*

    The eRulemaking Initiative targets the Notice and Comment portion of rulemaking. The work of rulemaking begins much earlier—including prior related rules, issue scoping within the agency, the explorations of federal advisory committees or an Advanced Notice of Proposed Rulemaking. And rulemaking extends far beyond publication of the final rule—including challenges, enforcement actions and possible revisions. The records for these stages of rulemaking will ultimately reside in a digital library of federal records, as will related legislation, analyses from other rules, and so forth. The eRulemaking Initiative should be structured so as to be extensible, to absorb a larger fraction of this material, and interoperable, so as to work smoothly with the changing records management systems deployed across the federal government.

19. ***Web services.*** *The system should provide a machine interface for the input of comments and the output of docket materials.*

    Web services follow an evolving industry standard and facilitate interoperability among different computer systems. The eRulemaking system should include Web service interfaces for both input and output functions. These interfaces should be described through the publication of an Application Programming Interface that allows programmers to construct applications on other machines so they can transfer data to or from the Federal Docket Management System.

    A Web service that provides input to the system could allow comments to be submitted from systems other than the Federal Docket Management System (or other restricted government portals). This functionality is very desirable for organizational users of the system, who can then structure their own systems for the optimal convenience of their individual users.

    Web services could provide an enhanced output service, allowing users to retrieve all of the documents identified by an advanced search. This Web service would be designed to permit the efficient transfer such data, even in large amounts, from the Federal Docket Management System to a user's machine. People could, for example, extract all of the comments submitted to a specific docket or set of dockets without having to select each individual comment and request it for downloading.

    Web services could be also used for other purposes—for example, to implement open modeling, generate active notification, provide structured input, or handle multi-media submissions. In general they offer an attractive path to

interoperability; they provide key efficiencies through code that is optimized for high-volume data transfers and by off-loading system functions to other machines.

Rulewriter Toolbox. The idea of developing a set of tools for rulewriters is a good one. Some of these tools, such as those that facilitate searching, editing, tracking or notification will be logically the same as those described above for the Federal Docket Management System. If they include more advanced features, these capabilities should also be available to the public, since some public participants in rulemaking are interested in analyzing comments at the same level of detail as rulewriters. Over time, additional features can be incorporated into the system—if it is designed in a sufficiently modular manner that this can be done without the need for extensive reconfiguration. Web services could provide a good technological base for such extensions to the core system. The Rulewriter Toolbox thus provides an example of the need for the following elements, which are also relevant for the Federal Docket Management System as a whole.

20. ***Modular architecture****. System architecture should be modular, with open protocols for data storage and transfer and for public interfaces.*

    Modern software design demands a modular architecture. Each module should be self-contained, with well-defined and publicly-documented inputs and outputs. System design should be dictated by the business processes and other objectives that the system is intended to address, not by the features of any particular software product. Communication among modules should be based on openly-published data standards and communications protocols. A modular architecture built on public protocols has many advantages: (a) it reduces development time and cost, (b) it facilitates interoperability with other systems inside and outside the federal government, (c) it allows modules to be reused in other environments, (d) it provides flexibility to accommodate future innovation, and (e) it simplifies system upgrades and prolongs the useful life of the system.

21. ***Interoperability.*** *The system should be interoperable with other governmental and stakeholder systems.*

    It will be physically impossible to meet all the record-keeping demands of federal rulemaking with any single system, since the relevant materials are generated by a broad range of people over a lengthy period of time. Hence it is essential that each component of the rulemaking records system be designed to allow the easy exchange of data with other computer systems. This requirement becomes even more important when one considers use of the system in conjunction with other systems—those of state, local and foreign governments, those of various stakeholder groups and members of the general public. As noted previously, interoperability is best achieved through a modular architecture based on data protocols developed in public discussions among participating agencies and non-governmental stakeholders. Again, Web services can be a valuable mechanism for achieving this goal.