NEPA
National Environmental Policy Act
LESSONS LEARNED
U.S. DEPARTMENT OF ENERGY QUARTERLY REPORT
September 2017; Issue No. 92 Third Quarter FY 2017

Measuring DOE's EIS Process

DOE completed 175 EISs from 1994 through 2016 in a median time of 29 months from notice of intent (NOI) to final EIS. As discussed in more detail below, comparing the early and later years of this time period suggests a gradual increase in completion time with a median time of 26 months for EISs completed from 1994 through 1999 and a median time of 40 months for EISs completed from 2012 through 2016. In addition, the variability in the time from draft to final EIS has increased by about 50 percent over this period.

Data suggest one area where DOE tends to complete EISs consistently faster. Sixty of the 175 EISs were prepared in response to applications for approvals, permits, or financial assistance. For these applicant-sponsored projects, DOE completed the EISs in a median time of 21 months, about one third faster than the 115 EISs prepared for DOE-sponsored programs and projects.

What We Analyzed

This issue of *LLQR* examines long-term trends in EIS schedule data from 1994–2016. The analysis is based on completed and ongoing EISs for which DOE was the lead or co-lead agency.[1] Calculated time periods are based on the *Federal Register* publication dates of the DOE NOI to prepare an EIS and the Environmental Protection Agency notices of availability of the draft EIS and final EIS.

The Office of NEPA Policy and Compliance began tracking DOE EIS schedule data following issuance of the *Secretarial Policy Statement on the National Environmental Policy Act* in 1994. The NEPA Office published its first analysis of this data in *LLQR* in 1996 and updated that analysis most recently in 2013 (text box, page 6).

The analysis of EIS data should be interpreted cautiously. The time to complete an EIS for similar projects can vary substantially. DOE's NEPA Compliance Officers and NEPA Document Managers have identified many factors that influence the schedule for an EIS, such as data collection needs (e.g., required data may be available at the start of one project, while, for a similar project, time for data collection may need to be incorporated into the EIS schedule), consultation requirements (often pursuant to the National Historic Preservation Act and the Endangered Species Act), and time waiting for program direction or project plans. Because of these and similar factors, data derived from a small group of EISs may not reflect typical DOE experience.

Also, it is useful to bear in mind that preparation of an EIS is only one part of DOE's decisionmaking process. The analysis reported here does not account for work completed prior to the NOI, such as project development, site-specific data collection, and public outreach. It does not directly address

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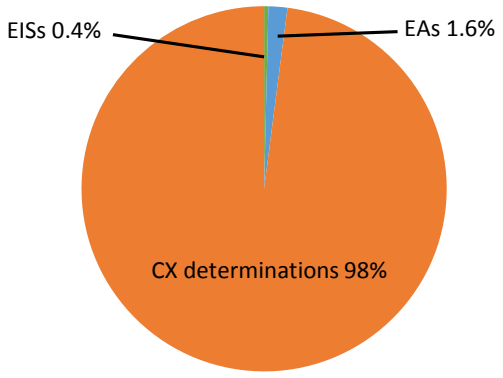
[1] *EISs that DOE adopted or canceled are not included.*

DOE's NEPA Experience Overview



From 2010 through 2016, DOE issued 37 NOIs to prepare an EIS, determined the need for 205 EAs, and completed more than 12,000 categorical exclusion (CX) determinations. (For more information on CX determinations, see LLQR, *March 2017, page 3.)*

Inside *Lessons Learned*

Welcome to the 92nd quarterly report on lessons learned in the NEPA process. This issue looks for the lessons found in the metrics from years of DOE experience preparing EISs, including factors that lead to shorter EIS completion times. Thank you for your continued support of the Lessons Learned program. As always, we welcome your suggestions for improvement.

Brian Costner
Acting Director
Office of NEPA Policy and Compliance

Be Part of Lessons Learned

We Welcome Your Contributions

Send suggestions, comments, and draft articles, especially case studies on successful NEPA practices, to Yardena Mansoor at yardena.mansoor@hq.doe.gov.

Questionnaires Due November 8

For NEPA documents completed July 1 through September 30, 2017, NEPA Document Managers and NEPA Compliance Officers should submit a Lessons Learned Questionnaire by November 8. Other document preparation team members also are encouraged to submit a questionnaire. Contact askNEPA@hq.doe.gov for more information.

LLQR Online

All issues of *LLQR* are available on the DOE NEPA Website. To be notified via email when a new issue is available, send your email address to yardena.mansoor@hq.doe.gov.

Email Updates

Subscribe here to receive emails announcing the availability of DOE NEPA documents and notices on the DOE NEPA Website.

Training Opportunities

U.S. Institute for Environmental Conflict Resolution Collaboration in NEPA October 18–19; Phoenix, Arizona

Udall Foundation
CIVILITY, INTEGRITY, CONSENSUS

The U.S. Institute for Environmental Conflict Resolution – a program of the Udall Foundation, an independent federal agency – is offering a 2-day course entitled "Collaboration in NEPA," which builds on guidance from the Council on Environmental Quality's handbook, *Collaboration in NEPA*. The syllabus states that, "Participants will learn how to assess and plan for successful collaboration in NEPA processes using appropriate tools, techniques, and best practices. Participants also will develop a better understanding of the policy goals of NEPA and the benefits of using collaborative approaches to achieve those goals. This interactive and experiential training will include real-world NEPA case studies and skills practice and enable participants to analyze the potential and plan for collaboration in upcoming NEPA activities."

National Environmental Justice Conference (Abstracts due December 1) April 25–27; Washington, DC

2018 National Environmental Justice Conference & Training Program

Enhancing Communities through Capacity Building and Technical Assistance is the theme of the 2018 National Environmental Justice Conference and Training Program, to be held on April 25–27 in Washington, DC. The conference, sponsored jointly by DOE and other federal agencies with academic and private sector partners, is free to government employees, community organizations, students, and faculty. Abstracts for panel presentations, workshops, training modules, case studies, best practices and success stories in all environmental justice related areas are due by December 1 and may be submitted to email@thenejc.org. Additional information is available on the conference website.

The listing of any privately sponsored conferences or training events should not be interpreted as an endorsement of the conference or training by the government.

Trump Administration Promotes Faster Environmental Reviews for Infrastructure Projects

President Trump, in his first week in office, declared that "it is the policy of the executive branch to streamline and expedite, in a manner consistent with law, environmental reviews and approvals for all infrastructure projects, especially projects that are a high priority for the Nation, such as improving the U.S. electric grid and telecommunications systems and repairing and upgrading critical port facilities, airports, pipelines, bridges, and highways."

In Executive Order (E.O.) 13766, *Expediting Environmental Reviews and Approvals for High Priority Infrastructure Projects* (January 24, 2017), the President emphasized the importance of infrastructure investment to America's economic competitiveness. He stated that delays caused by agency processes and procedures have increased project costs and "blocked the American people from the full benefits" of these investments. "Federal infrastructure decisions should be accomplished with maximum efficiency and effectiveness, while also respecting property rights and protecting public safety and the environment," President Trump said.

Goal: Two Years

The President has challenged federal agencies to complete environmental reviews for infrastructure projects within two years. At a June summit with governors, tribal leaders, mayors, and others, President Trump used highway projects as an example of where the administration is "taking action to dramatically reduce the time it takes to get permits and approvals." Just getting the approvals to build a highway "can take well over 10 years," he said. The goal, he continued, is to get that "closer to two years, and maybe even less than that."

The President subsequently issued E.O. 13807, *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects* (August 15, 2017), which states that "processing of environmental reviews and authorization decisions for new major infrastructure projects should be reduced to not more than an average of approximately 2 years" measured from publication of the notice of intent to prepare an EIS or other benchmark designated by the Director of the Office of Management and Budget.

Energy production and generation (including from fossil, renewable, nuclear, and hydro sources), and electricity transmission are among the types of infrastructure projects addressed by E.O. 13807. A "major infrastructure project" is one for which "multiple authorizations" by federal agencies will be required to proceed with construction, the lead federal agency has determined that it will prepare an EIS, and "the project sponsor has identified the reasonable availability of funds sufficient to complete the project."

E.O. 13807 establishes an approach called "One Federal Decision" for use with major infrastructure projects. Under this approach, a lead federal agency is responsible for navigating the project through the federal environmental review and authorization process. Involved federal agencies "shall all agree to a permitting timetable" and agencies shall record their individual decisions in a single record of decision, unless certain conditions specified in the E.O. apply.

On September 14, 2017, the Council on Environmental Quality published an initial list of actions it plans to take to further the implementation of the One Federal Decision approach and other elements of E.O. 13807 (82 FR 43226).

Recent DOE Experience with EISs for Energy Infrastructure Projects

DOE completed 54 EISs for energy infrastructure projects, predominantly electricity transmission and generation, from 2003 through 2016. The average completion time from notice of intent to final EIS was 30 months; the median was 26 months. Twenty-four EISs (about 44 percent) were completed in less than 2 years; the longest took 77 months.

There is a difference in the median completion time based on whether the project was proposed by DOE or an applicant. The median EIS completion time for the 36 DOE-sponsored energy infrastructure projects was 29 months (average 31 months). The median EIS completion time for the 18 applicant-sponsored energy infrastructure projects was 18 months (average 28 months).

DOE's EIS Process Times *(continued from page 1)*

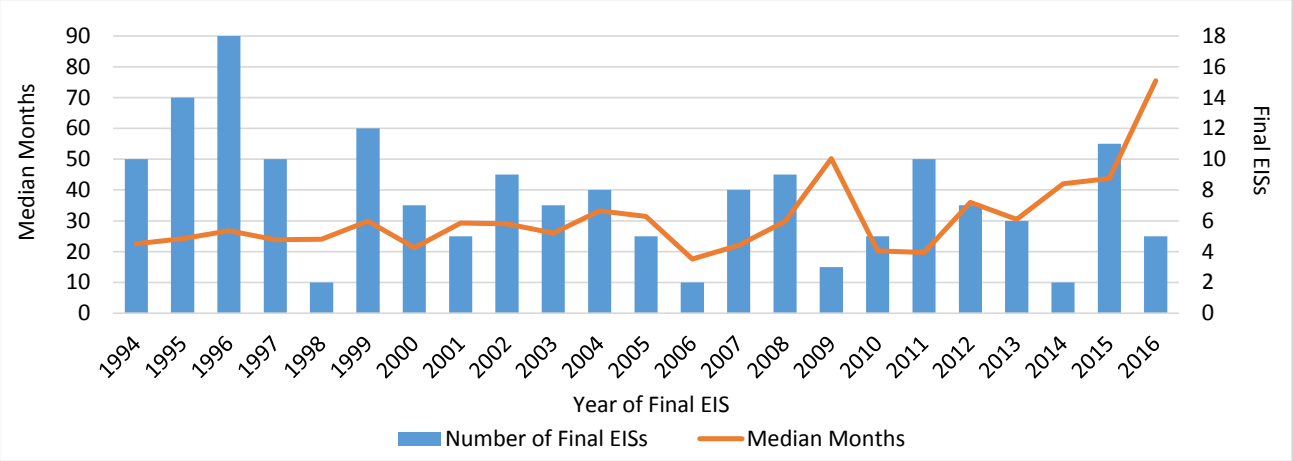


Figure 1. Median completion time for 175 EISs prepared by DOE in 1994–2016, sorted by the year the notice of availability of the final EIS was published.

work that DOE or an applicant conducts in parallel with the EIS process. DOE experience, however, demonstrates that work outside the NEPA process can affect an EIS schedule by, for example, stopping work on an EIS while issues unrelated to potential environmental impacts are resolved. The analysis also does not address work after issuance of the final EIS, such as completion of non-DOE approval processes and preparation by DOE of a record of decision.

EIS Completion Times

DOE tracks the median EIS completion time. The median is the middle number in a set. It is commonly used to describe data sets with outliers, such as in this case, EISs with very long schedules. The calculated mean (or average) for such data sets can be skewed by the outliers.

Past *LLQR* articles have sorted EIS completion times by the year of publication of the notice of availability of the final EIS. This analysis continues that practice and also includes the same data sorted by the year the NOI was published. The two approaches shed different light on the data.

When data is sorted by the year of the final EIS, DOE's median completion time appears relatively stable through 2011 (with a noted increase in 2009), followed by an increase almost every year during 2012–2016 (Figure 1). This is partially due to the combination of relatively few NOIs in recent years and the increase in EISs initiated during 2009–2011, many of which have recently been completed. Most of those EISs were for projects related to implementation of the American Recovery and Reinvestment Act (ARRA). (See *LLQR*, December 2011, page 10.)

At the end of 2016, the median time for active EISs (EISs that have an NOI but had not issued a final EIS) was 52 months, compared to a median of then-active EISs of 21 months at the end of 2011. EIS completion time for the last few years is heavily influenced by projects started 5 or more years ago and is not representative of projects started in the last few years.

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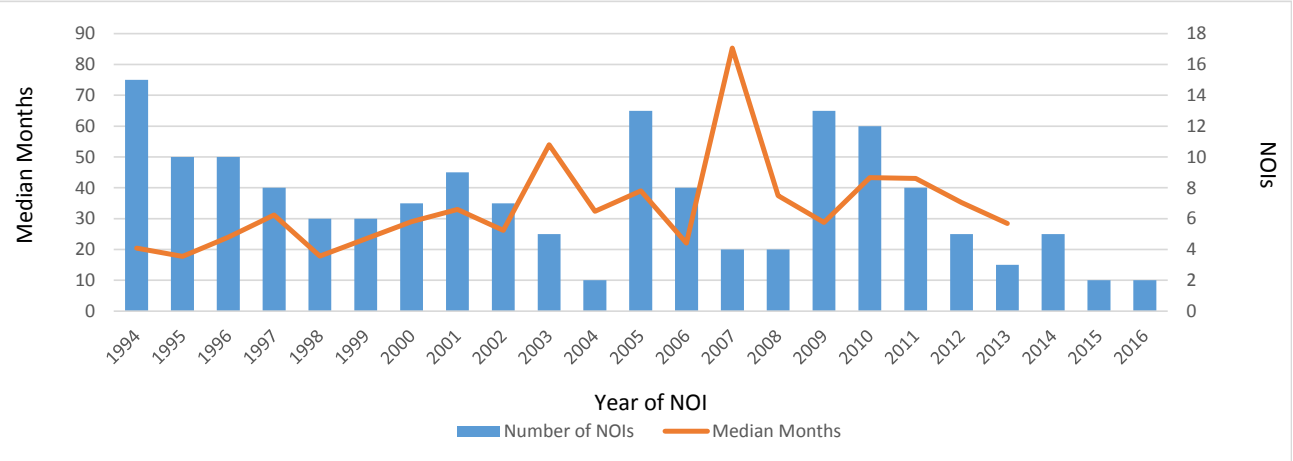

Figure 2. Median completion time for 175 EISs prepared by DOE in 1994–2016, sorted by the year the NOI was published.

DOE's EIS Process Times *(continued from previous page)*

To get a better picture of recent changes in EIS completion time, it is helpful to categorize EISs by the year that the EIS process started (year of NOI). This allows more focused analysis of recent shifts in EIS preparation and completion time and to answer questions about projects started recently. Figure 2 shows a small increase in medium completion times through 2010, followed by a decrease in median completion times for EISs started in 2011–2013. A median cannot be determined for the final EISs after 2013 because not enough of the EISs started in those years have been completed. However, comparing data on draft EISs (not displayed in Figure 2), the median time to issue a draft EIS for documents with an NOI published in 2014 shows a small increase from previous years. This suggests that the median final EIS completion time will show a similar increase when full data are available.

Another perspective on the data comes from sorting EISs by the number of EISs completed in a similar amount of time. Figure 3 uses 5 month increments. DOE has completed 34 EISs in 15–19 months, which is more than for any other increment. This figure also shows that DOE has completed 70 EISs in 24 months or less, and 105 EISs in more than 24 months.

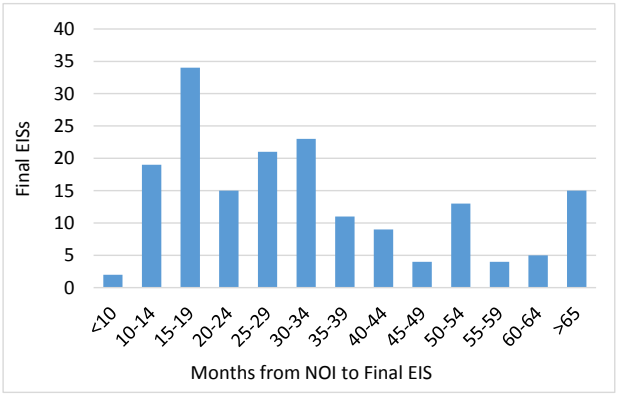

Figure 3. Completion times for 175 EISs prepared by DOE in 1994–2016.

Breaking Down NOI to Draft to Final

Across all DOE EISs completed since 1994, preparing the draft EIS takes about two-thirds of the total time from NOI to final EIS (Figure 4). The median time from NOI to draft EIS is 17 months and the median time from draft EIS to final EIS is 9 months for documents completed from 1994–2016. The ratio of median time from NOI to draft EIS and NOI to final EIS has remained relatively steady (between 1.5:1 and 2:1) since 1994, even as both completion times increased during the most recent period analyzed (2012–2016).

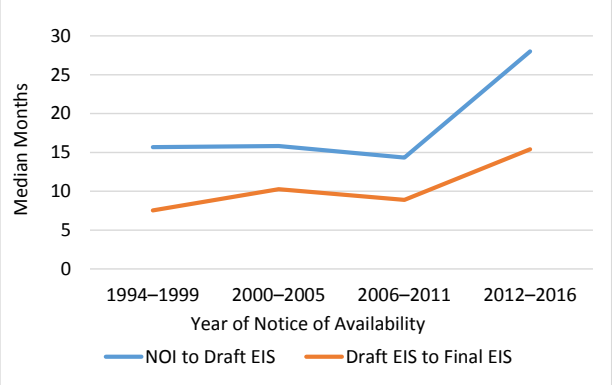

Figure 4. Median time for 175 draft and final EISs prepared by DOE in 1994–2016.

One difference in data for 2012–2016 compared to earlier time periods is that the variability in time from draft to final EIS increased. The standard deviation of time from draft EIS to final EIS was 8 months for final EISs completed from 1994–1999 and 12 months for final EISs completed from 2012–2016.

Faster EISs for Applicant-Sponsored Projects

The NEPA Office also examined completion times for EISs related to applicant-sponsored and DOE-sponsored projects (Figure 5). EISs for both applicant-sponsored and DOE-sponsored projects show fairly steady median completion times for the first three time periods, but a notable increase in the most recent time period.

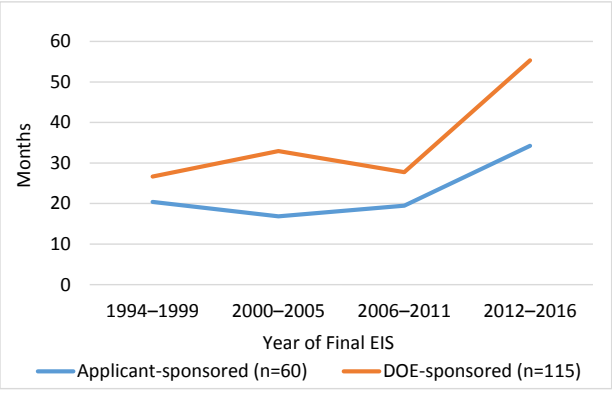

Figure 5. Median completion time (1994–2016) for 60 EISs for applicant-sponsored projects and 115 EISs for DOE-sponsored projects.

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DOE's EIS Process Times *(continued from previous page)*

DOE tends to complete EISs for applicant-sponsored projects in less time (mean 26 months, median 21 months) than DOE-sponsored projects (mean 37 months, median 31 months). This is a statistically significant difference (P=.0004).[1] It is not clear, however, whether this difference is due to the type of projects that are applicant driven, external drivers, or something applicants do (e.g., perform more pre-NEPA analysis) that allow for a faster NEPA process. This will be the subject of further analysis by the NEPA Office.

The number of EISs started each year has gradually declined since DOE first started collecting data in 1994, with the exception of an increase in EIS starts during ARRA implementation (2009–2011). This combination has resulted in a body of older, active EISs (those that have started but not finished), and thus a higher recent median completion time of 40 months (2012–2016). Future NEPA Office analysis will focus on different types of projects and the reasons for the differences discussed in this article with the goal of identifying best practices to improve DOE's NEPA process.

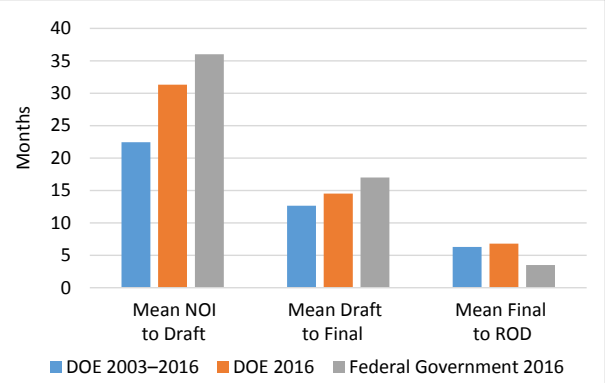
For further information on NEPA process metrics, contact Bill Ostrum, NEPA Office, at william.ostrum@hq.doe.gov.

[1] The results of the comparison are deemed statistically significant because the P value associated with a t-test shows that the probability is less than 5 percent that the observed difference (or a more extreme difference) in EIS completion times between applicant-sponsored projects and DOE-sponsored projects is due to random variation in the data.

DOE EIS Completion Times Are Shorter than Government-wide

The Council on Environmental Quality (CEQ) recently analyzed preparation times for 107 EISs completed, including issuance of a record of decision (ROD), by federal agencies in 2016. DOE typically takes less time than federal agencies as a whole to prepare a draft and final EIS, but longer to issue a ROD after the publication of the final EIS. As illustrated below, this is true when comparing DOE's mean completion time for 2016, as well as DOE's mean time over the period 2003–2016, to all federal agencies' mean time for 2016.

The pattern also holds when comparing median completion times. CEQ calculated the government-wide median time from notice of intent (NOI) to ROD as 49 months for RODs issued in 2016. This is longer than the DOE median time from NOI to ROD of 44 months for 2016 and 35 months for the period 2003–2016.



Past DOE NEPA Metrics Analyses

Past analyses of trends in metrics data reported in LLQR include the periods:

1993–1996 (June 1996, page 16)
1994–1997 (March 1998, page 17; June 1999, page 19)
1989–1999 (June 2000, page 23)
1993–2003 (June 2003, page 26)
1994–2003 (September 2003, page 4)
1996–2005 (March 2006, page 32)
1997–2007 (June 2007, page 28)
1998–2007 (December 2008, page 16)
2001–2010 (September 2011, page 1)
2003–2012 (September 2013, page 1)
1993–2012 (September 2013, page 3)

Shorter EIS Completion Times: A Closer Look

The NEPA Office examined EISs that DOE recently completed in 2 years or less to better understand what factors may have contributed to the shorter schedules relative to DOE's median EIS completion time of 29 months during 1994–2016. NEPA Document Managers attribute the shorter completion times to factors such as DOE senior management attention, external schedule drivers, the availability of data, and engaging a team of experienced DOE and contractor staff to prepare the EIS. NEPA Document Managers point out that they were able to ensure the quality of the EISs while achieving these schedules.

These observations are consistent with past assessments of short EIS completion times conducted by the NEPA Office in 1996 and 2008 (text box). Indeed, they are among the factors that NEPA Document Managers have regularly identified as important to the success of any EIS.

In addition to seeking input from NEPA Document Managers, the NEPA Office analyzed several data points for patterns that might help explain the shorter completion times. This analysis focused on 20 EISs completed by 11 DOE program and field offices in 2003–2016. These EISs had a median completion time of 16 months. They addressed a variety of project types, analyzed from two to more than five alternatives, and had widely varying levels of public interest. These factors do not set the 20 EISs apart from DOE EISs as a whole and do not appear to indicate a reason for the shorter completion times.

Past Assessments of EIS Completion Times

In 2008, based on an analysis of information from Lessons Learned Questionnaire responses, Eric Cohen, former NEPA Office Unit Leader, identified the primary factor associated with short EIS completion times as management attention to scope, schedule, and key issues. Strong preparation teams with dedicated members and appropriate skills, and excellent team communication are among other factors related to short EIS completion times, he noted (*LLQR*, December 2008, page 16).

Similarly, a study of short EIS completion times by the NEPA Office in the mid-1990s noted that the five EISs completed in the shortest amount of time (less than 11 months) all had aggressive preparation and review schedules, preparation teams dedicated to only one EIS, and high-level DOE management support (*LLQR*, December 1996, page 13). For that 1996 analysis, the NEPA Office concluded that "common factors associated with document preparation times include the degree of dedication of the preparation team and the commitment of higher-level management to the NEPA process."

Factors Supporting Successful Schedules

"One factor that played a major role in our ability to meet our aggressive schedule was having the full buy-in of the Bioenergy Technology Office's project team and management. DOE's technical project officer for the biorefinery project was fully engaged in the EIS process from beginning to end. Having a truly integrated team went a long way to eliminate surprises throughout the process, which in turn helped us stay on schedule," explained Kristin Kerwin, NEPA Compliance Officer for the Golden Field Office and NEPA Document Manager for the Abengoa Biorefinery EIS.

Mark McKoy, NEPA Compliance Officer for the National Energy Technology Laboratory (NETL) and NEPA Document Manager for four integrated gasification combined-cycle (IGCC) and carbon sequestration project EISs among the 20 EISs, reiterated that NETL management and DOE Headquarters management interest in the schedules was a primary driver to completing those EISs faster than normal.

Mr. McKoy explained, "There really was no secret formula to a fast NEPA process: it was the result of working extreme schedules when needed to get the job done as quickly as possible, and it was the result of experience in doing NEPA work. The motivation was that all involved believed in the project's merits and the need to complete the EIS process as quickly as possible." Fred Pozzuto, NEPA Compliance Officer for NETL, noted that "a well-experienced NEPA team will be able to wade through obstacles quicker," but he cautioned that "there are a multitude of factors outside of DOE's control that can affect the schedule of an EIS or EA."

Mr. McKoy explained that DOE initially relied upon "environmental information volumes" prepared by the industrial proponent to help support preparation for one of the IGCC EISs, but later abandoned that approach because the proponents preparing such volumes in sequence with the EIS prepared by DOE did not save time. However, "Asking project proponents to submit basic project information documents along with their applications for financial assistance (or other award) can be very helpful," he said.

In addition, Mr. McKoy highlighted that the EISs were for projects designed to minimize the potential adverse impacts as much as could reasonably be done and that the industrial participants "truly knew how to work with the public and had an environmental stewardship ethic that carried through in all aspects of the project."

Another possible factor contributing to short completion times is the presence of an external schedule driver (e.g., legislative deadline or schedule requirements for a parallel state siting or planning process). Mr. McKoy noted that the industrial participants for the IGCC projects were "facing significant

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EIS Completion Times *(continued from previous page)*

financial pressures, as well as the pressures associated with changing markets that affected the viability of their projects. Prices were escalating on materials and labor for constructing the power plants or carbon capture systems, making it harder to finance the projects. Every day of delay in completing the NEPA process meant the respective industrial participant would have to borrow more money and pay more interest."

In another example, under Section 303 of the Energy Policy Act of 2005, DOE had one year to complete a proceeding to select sites for expansion and new storage to accommodate the Strategic Petroleum Reserve's authorized volume of one billion barrels, up from the design capacity of 727 million barrels. This deadline was a primary driver for DOE's completion of the EIS for Expansion of the Strategic Petroleum Reserve in 15 months. (See *LLQR*, December 2005, page 30, and March 2007, page 1.) Another EIS (completed in 16 months), for a transmission line project, was jointly prepared with a state agency, and largely driven by schedule requirements associated with an applicable state siting law.

David Levenstein, NEPA Document Manager for both the EIS and Supplemental EIS for Storage of Elemental Mercury, noted that his EIS team was under the proverbial "statutory hammer" to complete the NEPA process quickly due to timing requirements included in the Mercury Export Ban Act of 2008. "At the outset, I prepared an aggressive EIS schedule and assembled an experienced EIS preparation team to support me in preparing the EISs for DOE's storage of elemental mercury. That, combined with management support from the Office of Environmental Management at DOE Headquarters, ensured success in meeting the schedule," said Mr. Levenstein.

Diverse Set of EISs Met Short Schedules

The 20 EISs are a varied lot. The ability to complete an EIS in 2 years or less was not associated with particular project characteristics or level of public interest.

The EISs addressed proposed projects for: renewable energy (four EISs, including two for interconnection requests for wind farms), electricity transmission (five EISs), DOE site operations (three EISs), waste management (three EISs), and IGCC and/or carbon sequestration (five EISs). Most of these involved projects proposed for a single location. However, two EISs addressed several locations across the country, and one EIS was related to a national program for nuclear waste disposal.

Six of the 20 EISs analyzed just the no action alternative and the proposed action, while 14 EISs analyzed more than one action alternative (i.e., three or more alternatives total). Five of the 20 EISs analyzed five or more alternatives in detail.

Thirteen (65 percent) of the 20 EISs were proposed by an applicant and submitted to DOE for consideration for financial assistance, a Presidential permit, or an interconnection request to a DOE power marketing administration. Work by the applicant prior to coming to DOE can make completion of the NEPA process more efficient. For example, DOE completed an EIS for a loan guarantee for a proposed solar farm project in 10 months (*LLQR*, March 2012, page 3). The project proponent applied to the local county for a conditional use permit 2 years before DOE initiated preparation of the EIS. The project's final facility configuration was then approved by the county land use planning body prior to DOE's issuance of the final EIS. As a result, DOE presented in the final EIS the county-approved project layout including all environmental protection measures and Conditions of Approval contained in the county's conditional use permit.

There was a substantial range in the level of public interest in the 20 EISs as indicated by the number of public comments and comment documents received.[1] DOE received 20 or fewer comment documents on about one third of the draft EISs.

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[1] A comment document is typically a public hearing transcript, letter, or email that contains one or more comments. A comment is a statement or question regarding the draft EIS content.

Abbreviated Final EISs

In addition to the 20 EISs analyzed here, DOE issued 10 "abbreviated" final EISs in less than 2 years in 2003–2016. These are EISs for which there were few changes from the draft EIS, and the final EIS was comprised of the draft EIS plus pages addressing public comments and any changes needed. This approach is provided for in the Council on Environmental Quality NEPA regulations (40 CFR 1503.4(c)).

The 10 abbreviated final EISs were all related to electricity transmission projects. DOE received less than 10 comment documents on half these EISs, and up to about 60 comment documents on the remainder of the EISs.

The median completion time for the 10 abbreviated final EISs was 18 months. For both sets of documents completed in less than 2 years from 2003–2016, the median time from the notice of intent (NOI) to draft EIS was 10 months. The median time from draft EIS to final EIS was 6 months for the set of 20 documents, and 8 months for the 10 abbreviated final EISs. The median time for all 88 DOE EISs prepared from 2003–2016 was 32 months, with 20 months from NOI to draft EIS and 10 months from draft EIS to final EIS.

EIS Completion Times *(continued from previous page)*

For several of the EISs, DOE received hundreds of comment documents. For two EISs, DOE received several thousand comment documents each. One transmission line EIS had more than 4,000 comment documents on the draft EIS and was prepared in 11 months. Another EIS – analyzing several proposed missions at multiple DOE sites – received nearly 100,000 comment documents on the draft EIS and was completed in 24 months.

Quality Matters

NEPA Document Managers emphasized that, despite strong pressure to prepare EISs quicker, DOE has a responsibility to prepare quality NEPA documents. "While these EISs were completed quickly, we did not achieve this by taking shortcuts, by omitting field work or analyses, by not trying to provide solid responses to comments from the public and other agencies, et cetera. We simply worked with commitment and determination both to complete the process very well and to do so as quickly as possible," said Mr. McKoy.

Think DOE EISs have Gotten Bulkier? You're Right

The length of DOE EISs appears to have more than doubled over the past 20 years. Excluding abbreviated final EISs, the median total length for 28 DOE final EISs issued in 1994–1999 was 650 pages; the total length increased to 1,600 pages for 32 final EISs issued in 2011–2016. The mean (average) page counts for these periods were, respectively, 1,100 pages and 2,500 pages.

The longest EISs in each set have a stronger influence on the mean than on the median. Five EISs completed in 1994–1999 ran more than 2,000 pages, with the longest being about 3,600 pages. During 2011–2016, DOE completed 14 EISs that each had more than 2,000 pages; 6 of them were longer than 3,600 pages. The longest of these EISs, the *Final Programmatic EIS for Solar Energy Development in Six Southwestern States (Arizona, California, Colorado, Nevada, New Mexico, and Utah)* (Solar PEIS) (DOE/EIS-0403; 2012), included more than 11,000 pages. DOE was a co-lead with the Bureau of Land Management in preparing this EIS. If the Solar PEIS is excluded from the set, the average length of DOE EISs completed in 2011–2016 decreases from 2,500 pages to 2,200 pages.

Based on a preliminary review, the increase appears in sections throughout the documents, possibly with a disproportionate increase in the page count for appendices. The NEPA Office plans to further examine this increase in EIS document length to better characterize any changes that have occurred over time and identify options for improved NEPA efficiency.

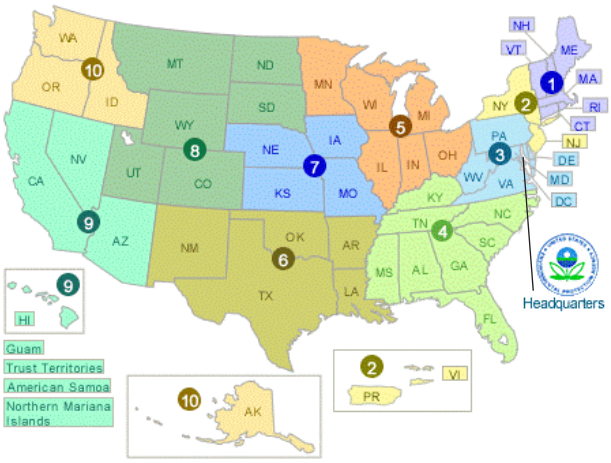
DOE and EPA: Building on Our Working Relationships through the Section 309 Review Process

By: Marthea Rountree, Federal Activity Liaison to DOE, EPA Office of Federal Activities

Building stronger relationships between the Environmental Protection Agency (EPA) and federal agencies is the mission of Robert Tomiak, Director of EPA's Office of Federal Activities. To support this goal, Kelly Knight joined the office in January as Director of the NEPA Compliance Division. Together with their staff, they have visited their NEPA counterparts in numerous agencies to exchange information that promotes an understanding of respective roles, missions, needs, and processes. Ms. Knight is now leading initiatives across the 10 EPA regions that encourage upfront collaboration and stronger partnering between EPA and federal agencies.

As EPA and DOE enjoy a longstanding positive working relationship, EPA met with the DOE NEPA Office in June to reaffirm its commitment to collaborating throughout the NEPA process. In addition to discussing EPA's role and authority under Section 309 of the Clean Air Act, the discussion also highlighted EPA's subject matter expertise – including air quality, water quality, and pollution prevention – available to DOE throughout the NEPA process. EPA suggested that DOE consider them not only as a potential cooperating agency, but also as an extension of "the DOE team." Ms. Knight and EPA staff (both at headquarters and across the 10 regions) are eager to work with DOE to develop ways to improve the efficiency and effectiveness of the Section 309 process.

Mr. Tomiak and Ms. Knight encourage DOE NEPA team leaders to establish a working relationship with colleagues in the EPA regions. LL



For each EPA region (above), the EPA NEPA review manager is listed below, followed by the lead EPA reviewer(s) for DOE EISs. Full contact information is provided in the DOE NEPA Stakeholders Directory.

1. *William Walsh-Rogalski, Timothy Timmermann*
2. *Grace Musumeci, Lingard Knutson*
3. *Jeffrey Lapp, Barbara Rudnick*
4. *Chris Militscher, Larry Long*
5. *Ken Westlake, Elizabeth Poole*
6. *Robert Houston, Michael Jansky*
7. *Josh Tapp, Joe Summerlin*
8. *Philip Strobel, Jennifer Schuller*
9. *Kathleen Goforth, Thomas Plenys, Scott Sysum*
10. *Jill Nogi, Theo Mbabaliye, Erik Peterson*

Clean Air Act Section 309

§7609. Policy review

(a) The [EPA] Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

(b) In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determinations and the matter shall be referred to the Council on Environmental Quality.

Transitions: Welcome to New NEPA Compliance Officers ...

Richland Operations Office & Office of River Protection

Four new NCOs, all of them attorneys in the Office of Chief Counsel, have recently been designated for the Richland Operations Office and Office of River Protection. They join Diori Kreske, who has served since 2013 as NCO for the two organizations at the Hanford Site.

Paul Detwiler, Chief Counsel, joined the Richland Operations Office this year from the National Energy Technology Laboratory, where he had served since 2009 as Chief Counsel and NCO. Previously, he spent 13 years at DOE Headquarters – in the Office of the Assistant General Counsel for Environment, as a special assistant to two General Counsels, and then as Deputy General Counsel of the National Nuclear Security Administration. In addition to significantly contributing to many major DOE EISs, Dr. Detwiler wrote *The Environmental Style: Writing Environmental Assessments and Impact Statements*, a practical guide to writing readable NEPA documents. It offers brief guidelines on structuring an EA and EIS and additional advice for clear, concise writing. He can be reached at paul.detwiler@rl.doe.gov or 509-376-4603.

Mark Silberstein advises the Office of River Protection on legal and regulatory issues and serves as lead field counsel on several state and federal litigation matters. He has worked extensively on NEPA and National Historic Preservation Act issues. Before joining DOE in 2011, Mr. Silberstein worked as a legal contractor with the United States Attorney's Office in the District of Columbia, and with the Department of Justice Antitrust Division. Mr. Silberstein holds a B.A. from Franklin & Marshall College, and a J.D. and environmental law certificate from Florida Coastal School of Law. He can be reached at mark.silberstein@rl.doe.gov or 509-376-2380.

Marla Marvin has worked since 2004 in the Office of Chief Counsel, and for the previous 4 years, she was the Director, Office of Communications, at the Richland Office. Before joining DOE, Ms. Marvin was legislative assistant/staff counsel and then legislative director for U.S. Senator Patty Murray (1995–2000) and a legislative assistant to U.S. Representative Jolene Unsoeld (1988–1992). Between her congressional stints, she worked as a law clerk for the Washington State Court of Appeals, public defender, and assistant attorney general. Ms. Marvin holds a bachelor's degree in political science and psychology from Pacific Lutheran University in Tacoma, Washington, and a law degree from the Washington College of Law at American University. She can be reached at marla.marvin@rl.doe.gov or 509-376-1975.

Pete Serrano has worked on NEPA and state equivalent review projects throughout his career. Prior to joining DOE in 2015, he worked for legal and consulting firms assisting private and government clients in addressing a range of environmental issues. Mr. Serrano earned his J.D. from Florida Coastal School of Law, an environmental law certificate, and a Master of Laws degree (LL.M.) in environmental law from Vermont Law School. He can be reached at simon.serrano@rl.doe.gov or 509-376-8035.

Office of Science

Teralyn Murray is the new NCO for the Ames and Princeton Site Offices. She joined DOE as an environmental engineer in 2015, after working for 6 years as an environmental director for the Department of Defense, including managing environmental issues in five foreign countries, and 9 years in the private sector, where she managed environmental programs and led NEPA and other environmental reviews in several states. Ms. Murray is a Ph.D. candidate in Environmental Engineering at the University of Illinois. She can be reached at teralyn.murray@science.doe.gov or 757-848-7643.

Peter (Pete) Siebach, NCO for the Office of Science (SC) since 2002 and for the Argonne Site Office since 2009, has also been designated NCO for the Berkeley, Oak Ridge National Laboratory, SLAC (Stanford Linear Accelerator Center), and Thomas Jefferson Site Offices. He leads the SC NEPA Community of Practice. Mr. Siebach can be reached at peter.siebach@science.doe.gov or 630-252-2007.

Transitions: ... and a Farewell

John Ganz, DOE's Longest Serving NCO, Retires

The last of the initial corps of NEPA Compliance Officers, John Ganz, retired on July 3 from the National Energy Technology Laboratory (NETL), DOE's center for petroleum, gas, and coal research and technology development. He served as NCO for the Morgantown Energy Technology Center (one of NETL's predecessor agencies) from 1990, when the NCO position was first established, to 1996, and then at NETL from 2005 until his retirement this year. He was the NEPA Document Manager for major EISs for the Clean Coal Program and organized a unique team of NCOs from NETL and other DOE organizations to meet the increased NEPA workload that arose from the 2009 American Recovery and Reinvestment Act (*LLQR*, September 2009, page 1).

Mr. Ganz concluded his diverse career with over 42 years of federal service, beginning with the Soil Conservation Service, followed by the U.S. Army Corps of Engineers (District of Columbia Office), and then DOE's remediation and restoration program for a uranium processing site at Ashtabula, Ohio. "Known to his colleagues as 'the Professor,' he was unfailingly eager to help his fellow NCOs," reports Fred Pozzuto, NCO and Acting Associate Director of the NEPA Compliance Division at NETL. He added that along with John's expertise, they will miss his sense of humor.

On behalf of the DOE NEPA Community, we offer John best wishes on his retirement and appreciation for his many contributions.

NEPA Office Issues 2017 Stakeholders Directory

The Office of NEPA Policy and Compliance issued the 34th edition of *Directory of Potential Stakeholders for DOE Actions under NEPA* in July. Approximately one-third of listings changed in the past year.

To supplement the lists of potentially interested parties that DOE offices compile for individual proposals, the directory provides current contact information in federal agencies (by referring to the list posted on the Council on Environmental Quality website and adding DOE-specific contacts and review information); states, territories, and state government associations; and nongovernmental organizations. Offices are encouraged to be inclusive in providing opportunities to review DOE NEPA documents.

The NEPA Office updates the entire directory each July and may issue updates throughout the year as new contact information is received. Send updates and questions to askNEPA@hq.doe.gov.

Reflections on a Summer in the NEPA Office

The Office of NEPA Policy and Compliance was fortunate to have three outstanding interns join the staff this summer. We are grateful for their important contributions to several projects, especially the DOE NEPA Community collaboration site. At the end of the summer, we asked them to reflect on their time at DOE, and share how it will influence their future studies and careers.

***Jeff Fang** is entering his second year at Indiana University's School of Public and Environmental Affairs, seeking a Master of Public Affairs and a Master of Science in Environmental Science.*

Putting aside the fact that a personal career goal is to work at DOE, the decision to intern in the NEPA Office was an easy one. In addition to having the opportunity to temporarily leave life in flyover country to live in Washington, DC, for 10 weeks, the internship program would provide a complete professional development package. My internship in the NEPA Office offered an intimate understanding of NEPA, the ability to contribute to projects of my interest, and the opportunity to network with and learn from industry experts.

Throughout the summer, I learned about NEPA's statutory and regulatory requirements, as well as its practical considerations. For instance, one of my earliest tasks was contributing to a training module providing an overview of NEPA. Although its primary purpose will be to educate others that are new to the NEPA process, the act of compiling content for the module also doubled as a means to expand my personal understanding of NEPA. I also participated in conference calls with NEPA Compliance Officers (NCOs) throughout the DOE complex, who conveyed real-world concerns with NEPA implementation familiar only to those with institutional knowledge. While I had some knowledge of NEPA prior to this internship, these experiences offered valuable insight that is not always available in a classroom.

In addition, I was able to contribute to substantive efforts helmed by various staff members in the office. My primary summer project was helping to create an internal website where the DOE NEPA Community can post resources, ask questions, and share expertise to facilitate effective and efficient NEPA compliance. While it is certainly possible to continually reinvent the wheel, sharing knowledge is much more efficient and conducive to building relationships. I also researched impact methodologies and regulations related to nuclear waste transportation analyses. Lastly, I analyzed and discovered trends in some fifteen years of public participation data.

Left to right: Jeff, Madeline, and Liliane contributed to key projects in the NEPA Office this summer.

Besides daily work tasks, I was given the freedom to take advantage of events offered at DOE and throughout the DC region. With the company of my fellow interns, I attended DOE-sponsored events at DOE Headquarters and major sites, including the U.S. Capitol, U.S. Supreme Court, and the Council on Environmental Quality. Offering background on democracy, federal law, and the need for environmental protection, respectively, these excursions provided valuable networking and professional development opportunities that complemented both my summer work activities and ongoing graduate education.

My time in Washington, DC, has been exciting, fulfilling, and at times overwhelming – just as I anticipated. While in some ways I have missed the small Midwest city of Bloomington, Indiana, with a population of just 85,000 people, I am fortunate to return with a broader perspective of environmental regulation in the energy sector and new qualifications that were specially shaped in our nation's capital.

***Madeline Green** is a rising senior at the University of California, Berkeley majoring in Sustainable Environmental Design.*

Contrary to the popular belief that the Federal Government can be "slow moving," the DOE NEPA Office provided the most fast-paced internship that I have yet to participate in. Immediately, on the first day, I was asked to research and identify my interest in a multitude of projects on the NEPA Office's agenda so I could hit the ground running. This pace didn't slow down, which meant I had the opportunity to contribute to many projects throughout the summer, including reviewing ongoing EISs, participating in research and data collection, as well as, developing two process improvement projects.

While working on EISs, I was shocked by the amount of public engagement for each project. I was exposed to many valuable and interesting opinions, and gained a better understanding of how different sectors' interests can align or conflict on a particular project.

(continued, next page)

Summer Interns Reflect *(continued from previous page)*

Working on these projects has challenged me to develop a more holistic perspective on the NEPA process, such as considering the distribution of benefits of large-scale projects.

My favorite aspect of the internship was kick starting and contributing to projects intended to improve the NEPA process. The first process improvement project that I worked on involved reviewing and analyzing the length of EISs. During my data collection, I was astounded by the length of some EISs – exceeding well over 1,000 pages! I realize that no EIS is the same because projects and their impacts are unique; however, I was surprised to learn that some of the longest portions of an EIS were summaries and introductions. I now realize that the length of an EIS is not only costly for project developers and time consuming for document managers and contractors, but it potentially provides a barrier to public participation.

The second process improvement project that I participated in was creating an internal website for collaboration among the DOE NEPA Community. My contributions to the website included making, gathering, and developing content for sections of the site focused on GIS mapping resources and environmental justice. I was amazed by the number of government-sponsored free GIS resources there are online, and the many interagency-discussions about the need to better acknowledge environmental justice impacts in NEPA. I strongly believe that the DOE NEPA Community collaboration site can become an extremely useful platform.

Through each these projects, I had the extremely satisfying opportunity to contribute to work that I hope will make a positive impact within DOE. I gained a much broader understanding of the NEPA process, specifically the regulatory and technical requirements. I also became aware of the valuable impact public participation has on shaping the NEPA process. Overall, I felt like a welcomed and valued team member and was inspired by the dedication and drive of the NEPA Office team members.

Liliane Lindsay *is a rising senior at Yale, majoring in Environmental Studies with a certificate in Energy Studies.*

Gaining applicable hands-on environmental policy experience in an academic setting is nearly impossible, since unlike STEM subjects (science, technology, engineering, and math), the methods and tools of government cannot necessarily be practiced in a classroom. So while my pre-med peers stayed in New Haven to tend to their labs and their theses, I made the trek to DC for an experiment of my own: making the transition from the classroom to the pinnacle of policy work – the Federal Government. As a DOE NEPA Office intern, I had the unique opportunity to directly influence the implementation of the very environmental statutes that I have dedicated my academic career to studying. Throughout the summer, my work has focused on developing tools and conducting research to more effectively and efficiently complete the NEPA process.

To improve NEPA implementation at DOE, I worked with the other interns to create a new internal website for collaboration in the DOE NEPA Community. Building this site from the ground up required meticulous planning to ensure ease of use and encourage active participation. To achieve these goals, we developed different tools to enhance the user experience – including an online video tutorial and other helpful resources. By facilitating open dialogue across DOE facilities nationwide, we hope to enrich the NEPA process and promote continued collaboration across the entire DOE complex.

I also worked on various efforts to expedite the NEPA process, including researching EIS document length and investigating how NEPA responsibilities and authorities are delegated throughout DOE. Both efforts emphasized the importance of clarity in the NEPA process, be it in the actual language of NEPA documents or the chain of command through which they are created. Through the latter of these projects, I also learned the importance of understanding and utilizing bureaucratic structure in the application of statutes and regulations to ensure an expeditious and effective NEPA process.

My great summer experiment proved fruitful, as all of the lessons from my time here at DOE have had a profound impact on my understanding of environmental policy. My foundational knowledge of the NEPA process prior to this experience was exclusively based on legal texts and case studies, and it wasn't until I tried to actively apply this knowledge that I realized just how much work is required to make the written statute a reality. Although NEPA itself is often considered the foundation of our national environmental policy, it is truly the internal work of the federal agency that serves as the backbone of the entire environmental review process – beyond simply what is written in the statute. My new understanding of NEPA from this experience has lifted the statute right off the paper to become an interactive process, breathing life and nuance into the black and white print that I have so heavily studied in school.

Much like the required lab work for STEM, my work this summer has helped contextualize the abstract concepts of my studies by formulating them into concrete action – a lesson that will certainly add dimension to my understanding of environmental policy as I continue with my studies this fall and into the future. LL

EAs and EISs Completed April 1 to June 30, 2017

For an EA, completion time is measured from EA determination to final EA issuance; the EA date is also the date of a finding of no significant impact (FONSI), unless otherwise indicated. For an EIS, completion time is measured from the Federal Register *notice of intent to the EPA notice of availability of the final EIS. Costs shown are the estimated amounts paid to contractors to support preparation of the EA or EIS, and do not include federal salaries.*

EAs

Bonneville Power Administration
DOE/EA-2051 (5/31/17)
Kootenai River Lower Meander Project,
Boundary County, Idaho
EA was prepared in-house; therefore, there were no contractor costs.
Time: 8 months

DOE/EA-2058 (5/31/17)
Upper Stillwaters and Stormy A Restoration Project on the Entiat River, Chelan County, Washington
EA was adopted; therefore cost and time data are not applicable. [U.S. Forest Service (USFS) was the lead agency; DOE was a cooperating agency.]

DOE/EA-2059 (5/31/17)
Chewuch River Restoration River Miles 15.5-20,
Okanogan County, Washington
EA was adopted; therefore cost and time data are not applicable. [USFS was the lead agency; DOE was a cooperating agency.]

Portsmouth/Paducah Project Office/ Office of Environmental Management
DOE/EA-1856 (6/29/17)
Conveyance of Real Property at the Portsmouth Gaseous Diffusion Plant, Pike County, Ohio
Cost: $101,000
Time: 78 months[1]

[1] Work on the EA was on hold for most of this time; actual EA preparation time was closer to 12 months.

EIS

Office of Fossil Energy
DOE/EIS-0531 (4/28/2017) 81 FR 19715
(Draft EIS EPA Rating: EC-2)
Port Delfin LNG Project Deepwater Port Application,
Cameron Parish, Louisiana
EIS was adopted; therefore cost and time data are not applicable. [U.S. Coast Guard and Department of Transportation's Maritime Administration were the co-lead agencies; DOE was a cooperating agency.]

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action
LO – Lack of Objections
EC – Environmental Concerns
EO – Environmental Objections
EU – Environmentally Unsatisfactory

Adequacy of the EIS
Category 1 – Adequate
Category 2 – Insufficient Information
Category 3 – Inadequate
(For an explanation of these definitions, see the EPA website.)

NEPA Document Cost and Time Facts

EA Cost and Completion Times

- For this quarter, the cost for the EA for which cost data was applicable was $101,000.
- For this quarter, the median and average completion time for 2 EAs for which time data were applicable was 43 months.
- Cumulatively, for the 12 months that ended June 30, 2017, the median cost for the preparation of 4 EAs for which cost data were applicable was $54,000; the average was $151,000.
- Cumulatively, for the 12 months that ended June 30, 2017, the median completion time for 10 EAs for which time data were applicable was 16 months; the average was 23 months.

EIS Cost and Completion Times

- For this quarter, no EISs were completed for which DOE was the lead agency.
- For the 12 months that ended June 30, 2017, no EISs were completed for which DOE was the lead agency.

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement in the Department's NEPA Compliance Program, DOE Order 451.1B requires the Office of NEPA Policy and Compliance to solicit comments on lessons learned in the process of completing NEPA documents and distribute quarterly reports.

The material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of NEPA Policy and Compliance.

Data Collection/Analysis

What Worked

- *Existing data*. Use of data from several previous NEPA assessments for similar actions helped expedite the EA process.

Process

Unsuccessful Aspects of the Public Participation Process

- *Out-of-scope public comments*. The public commented on issues outside the scope of the EA.

Usefulness

Enhancement/Protection of the Environment

- *Recreational impacts*. The NEPA process helped address possible recreational impacts to people boating on the river.

Effectiveness of the NEPA Process

For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 meaning "highly effective" with respect to the environment.

- For the past quarter, in which 2 questionnaire responses were received, both respondents rated the NEPA process as "effective."
- One respondent who rated the process as "3" stated that management supported the project.
- The other respondent who rated the process as a "3" stated that the NEPA process is a good exercise to determine if a proposed action would have negative impacts and determine better alternatives or solutions.