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I’m excited that rulemaking is the focus of this issue. It’s important that industry and the American public have better insight into our rulemaking process and understand the value we place on it. Developing and implementing regulations are very effective ways for the Coast Guard to save lives, protect the environment, and safeguard our maritime security. Although not as obvious or dramatic as a Coast Guard rescue swimmer pulling a survivor out of the water, well-written rules prevent countless marine casualties and security incidents. The only problem is that we seldom, if ever, know whose life was saved or what specific threat was averted.

Producing good rules is tough. Doing so in a timely manner is even more difficult. Under the best of circumstances and with the best of processes, drafting regulations is very time intensive. Because of the complexity and significance of the many scientific, technical, social, economic, and practical aspects of rulemaking, permanent rules cannot and should not be rushed, except in emergencies. Stakeholder input, including that from industry, state and local governments, environmental constituencies, small businesses, and others is absolutely essential, but often time consuming. In addition, there are numerous legal and process requirements, including a variety of statutes and executive orders, which mandate that various analyses be completed and presented for public comment at the same time as a proposed rule.

The inherent complexity and time-intensive nature of the rulemaking process make it absolutely essential that we be as efficient and effective as possible. Delays in Coast Guard rulemaking are frustrating and costly for everyone. That’s why the Marine Safety and Security Council chartered the Rulemaking Review and Reform Project (RRRP) to assess our rulemaking development system, including its organizational structures, processes, and work environments, to determine the root cause of rulemaking delays, identify specific opportunities and priorities for improvement, and develop an implementation plan.

Process analyses like the RRRP are essential, but only part of the solution. The right resources are also necessary. Thankfully, the administration and Congress have understood and provided substantial additional resources for our regulatory development program. Due to these process and resource improvements, our production has increased significantly and we expect that the results will be evident to our stakeholders.

I hope you enjoy this brief inside look, and invite you to participate in the rulemaking process. Your feedback is essential.
The U.S. Coast Guard is the nation’s maritime guardian, tasked by law with 11 different missions: ports, waterway, and coastal security; drug interdiction; aids to navigation; search and rescue; living marine resources; marine safety; defense readiness; migrant interdiction; marine environmental protection; ice operations; and other law enforcement. The set of authorities and responsibilities Congress assigned to the Coast Guard to regulate the maritime community bring these missions together. Our goal is to develop standards (policies and regulations) and execute a technical compliance program to guide and enhance the Coast Guard’s marine safety, security, and stewardship missions.

The Coast Guard is concerned about finding a means to reduce the cost of regulatory compliance, improve the competitive position of the U.S. maritime industry, and maintain our standards of safety, security, and environmental protection. Most recently, one of the most significant challenges facing the Coast Guard has been the timeliness of developing regulations, standards, and policies to meet our needs as well as those of the maritime industry and the public. A substantial increase in regulatory workload brought about by 9/11 and ensuing legislation placed the Coast Guard in a reactive rulemaking mode rather than a proactive leadership role. We were not staffed to address that increased regulatory workload as quickly as we would have liked.

In response to these increased demands, the Coast Guard embarked on an effort to improve the rulemaking process. First, we added 31 people to our regulatory process and legal staffs dedicated to rulemaking. Secondly, we identified 27 specific areas for improvement, which led to the initiation of our Rulemaking Review and Reform Project. This project gathered teams of Coast Guard personnel to develop each of the 27 recommendations and to generate additional ideas for improvement in communications, planning, management, IT support, and project team performance.

We have already begun to implement some of these improvements, which provides us an opportunity to reduce our project backlog, improve our processes and measurements, and increase our efficiency. For example, improvements to the process we use to develop preliminary work plans for regulations projects will establish better communications and clearer expectations of the full range of staff members involved in each project, and ensure all requirements for resources, reviews, approvals, funding, and implementation plans are fully understood before we embark on a particular regulation project. We have also clarified team roles and responsibilities and delegation of authority for each project, eliminating unnecessary overlapping regulation writing. We are leveraging technology by adopting our new electronic program management office, an intranet-based visual reporting system that will help us focus on important deadlines and establish priorities among the wide range of regulations under development.

In this issue we have a wide cross-section of articles that cover the full range of aspects associated with the rulemaking process. My thanks go to all of our collaborators and authors for providing their insights and perspectives. I hope that after reading this issue, you will have a better appreciation for our rulemaking process and the steps we take to address all stakeholders’ concerns.
The Department of Homeland Security (DHS) consists of over 22 components and more than 200,000 employees working to safeguard the United States.

DHS’s mission consists of five primary areas of responsibility:
1. guarding against terrorism;
2. securing our borders;
3. enforcing our immigration laws;
4. improving our readiness for, response to, and recovery from disasters;
5. maturing and unifying the department into one DHS with one enterprise, a shared vision, and integrated results-based operations.

The U.S. Coast Guard and its regulatory program play a critical role in each of these areas.

USCG Within DHS
Additionally, the U.S. Coast Guard has one of the broadest missions in DHS, encompassing maritime safety and security, law enforcement (ranging from drug interdiction to prevention of illegal fishing to migrant interdiction), border protection, and environmental protection. It’s not surprising, then, that the Coast Guard also has the largest and most varied regulatory agenda of any of the department’s components.

While often lacking the glamour of a boat chase or dramatic rescue, the Coast Guard’s rulemaking program, which forms the backbone of the Coast Guard’s operational authorities, is no less important. The Coast Guard issues hundreds of regulations each year, ranging from local field regulations establishing or revising safety and security zones to complex regulatory actions proposing important environmental protections and critical maritime security initiatives.

Regulations Can Improve Security
Rulemaking is one of the principal methods of enhancing the nation’s security. It is the process that enables DHS to prescribe binding requirements on private entities, states, and federal agencies.

When DHS promulgates regulations to further the security of the homeland, it imposes obligations on millions of citizens—legally binding obligations that can result in significant costs. Therefore, it is critical that DHS regulations are well coordinated—within the department and the executive branch—to ensure that regulatory initiatives are implemented in compliance with applicable statutory authorities. These regulations must also be the product of reasoned decision-making (often as reflected by a robust economic analysis) and consistent with the policies and priorities established by the White House, the Secretary of Homeland Security, and, with respect to Coast Guard regulations, the Commandant of the Coast Guard.

A Centralized Regulatory Process
The Regulatory Affairs Law Division’s Office of the General Counsel manages the centralized regulatory process for DHS. Regulatory Affairs is responsible for, among other things:

- Managing and coordinating (within the department and its components) review and clearance of DHS regulatory actions, significant guidance documents, and supporting regulatory documents.
- Ensuring the department’s regulations and regulatory impact assessments are consistent with statutory authorities, executive orders, and Office of Management and Budget (OMB) guidance governing federal agency rulemaking activities, and written in a clear manner.
- Coordinating with OMB’s Office of Information and Regulatory Affairs to clear significant regulatory actions.

USCG/DHS Coordination
Regulatory Affairs also works closely with the Coast Guard’s Office of Regulations and Administrative Law to coordinate Coast Guard regulations within DHS and through OMB’s interagency review process.

Regulatory Affairs economists also work closely with the Coast Guard’s Standards Evaluation and Analysis Division to develop and coordinate regulatory impact assessments supporting the Coast Guard’s regulatory initiatives. The close partnership between Regulatory Affairs and the Coast Guard’s regulatory staff remains a highly valuable component of the continued success of the Coast Guard’s regulatory program.

About the Author:
Ms. Mary Kate Whalen is Associate General Counsel for Regulatory Affairs for the Office of the General Counsel, Department of Homeland Security. She joined DHS in April 2004.
By law, the U.S. Coast Guard has 11 missions: ports, waterway, and coastal security; drug interdiction; aids to navigation; search and rescue; living marine resources; marine safety; defense readiness; migrant interdiction; marine environmental protection; ice operations; and other law enforcement. A common thread connecting these missions is the combined set of authorities and responsibilities Congress assigned the U.S. Coast Guard to regulate various aspects of the maritime community.

The Multi-Mission United States Coast Guard
Our missions are accomplished through five broad roles:

- **Maritime safety.** Eliminate deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating.
- **Maritime security.** Protect America’s maritime borders from all intrusions.
- **Maritime mobility.** Facilitate maritime commerce and eliminate interruptions and impediments to the efficient and economical movement of goods and people while maximizing recreational access to and enjoyment of the water.
- **National defense.** Defend the nation as one of the five armed services of the United States. Enhance regional stability in support of the National Security Strategy utilizing the Coast Guard’s unique and relevant maritime capabilities.
- **Protection of natural resources.** Eliminate environmental damage and the degradation of natural resources associated with maritime transportation, fishing, and recreational boating.

All of these roles are carried out by 43,000 active duty Coast Guard military service members and 8,000 civilian employees supported by another 8,000 reservists and 29,000 members of the Coast Guard Auxiliary. From the well-known public face of the Coast Guard rescue swimmer assisting boaters in distress, to the completely hidden-from-public-view environmental specialist who ensures that emergency plans are in place to respond to a marine oil spill, the Coast Guard continues to fulfill its missions and serve the public with distinction.

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**REG AGENDA**

Do you want to know what regulations the Coast Guard (or for that matter, any federal agency with regulatory responsibility) is currently working on, or is thinking of working on?

Then you need to be familiar with the document that is known to family and friends as the “reg agenda,” officially titled “Semiannual Unified Agenda of Federal Regulatory and Deregulatory Actions,” which contains the entire list of regulations the Coast Guard has undertaken. This list is updated and published twice a year, in spring and in the fall.

**Published Where?**

Go to: www.reginfo.gov. Click on the link in the center of the page, “Current and Past Agendas and Plans and How to Use Them.”

From the drop-down menu for “Select Agency,” select “Department of Homeland Security” and click “Submit.” Scroll down to the Coast Guard entries—the ones labeled “DHS/USCG.”

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Rulemaking 101

by Mr. Jaideep Sirkar
former Chief, U.S. Coast Guard Regulatory Project Development Division
So, what does all this have to do with regulations?
One way we exercise the authority given to us by the U.S. Congress, fulfill our roles, and accomplish our diverse missions is through regulations. Therefore, it logically follows that since our roles and responsibilities are so diverse, our regulations will be equally diverse. Thus, we have a multi-mission Coast Guard developing multi-mission regulations.

Multi-Mission Regulations
The Coast Guard’s regulatory program is unlike any federal agency in terms of the broad scope and diversity of the subject matter. Our regulations are primarily contained in Titles 33 and 46 of the Code of Federal Regulations.

Title 33, Navigation and Navigable Waters, contains several subchapters organized by subject matter. Subjects include:
- Coast Guard personnel,
- aids to navigation and navigation rules,
- maritime security,
- bridges over certain navigable waterways,
- security and safety of waterfront facilities,
- financial responsibility for marine pollution,
- outer continental shelf activities,
- deepwater ports,
- marine pollution,
- port and waterway safety,
- recreational boating safety.

In Title 46, Shipping, subject matter includes:
- marine casualty investigations;
- standards for training and certification of mariners;
- ship design requirements for various types of ships and marine vessels including hull structure, ship machinery, ship electrical systems, and lifesaving and firefighting equipment;
- documentation and measurements of vessels;
- specialized requirements for tank vessels, passenger ships, cargo vessels, and mobile offshore drilling units;
- handling of dangerous cargoes,
- nautical school ships,
- compensation rates for pilots on the Great Lakes.

Elsewhere in this issue we discuss the “who, what, how, why, and when” of our program. We hope we have piqued your interest with this short overview, and that you are inspired to read on and learn more about this interesting and important Coast Guard activity.

About the author:
Mr. Jaideep Sirkar is chief of the Naval Architecture Division at U.S. Coast Guard headquarters. Until September 2009 he was the chief of the Regulatory Project Development Division at U.S. Coast Guard headquarters for nearly eight years. As such, he coordinated the development of all USCG headquarters regulations during that period. He has degrees from the Indian Institute of Technology, the University of Michigan, Johns Hopkins University, and the National Defense University.
The Coast Guard Rulemaking Process

A six-act drama.

by Mr. Roger Butturini
Regulatory Development Manager
U.S. Coast Guard Office of Standards Evaluation and Development

The Coast Guard’s regulatory coordinator; defender
Project teams: Primary rulemaking resource; dedicated soldiers
OMB: Office of Management and Budget; for significant rules

The Players

Scoping document: Initial project description; short enough to be maddening
Work plan: The project roadmap; impossible to refold
NPRM: Notice of proposed rulemaking; “Is this the best route?” document
FR: Final rule; “We’re here!” document
ANPRM: Advance notice of proposed rulemaking; “This way?” document
SNPRM: Supplemental notice of proposed rulemaking; “Feedback” document
DFR: Direct final rule; “Just say yes” document
IR: Interim rule; “We can’t wait” document

Rulemaking 101

The Players

RegCo: The Coast Guard’s regulatory coordinator; defender
Project teams: Primary rulemaking resource; dedicated soldiers
OMB: Office of Management and Budget; for significant rules

The Play

Prologue

Ask people about the rulemaking process and they conjure many different images. A black box, whizzing, churning sounds rising from inside, covered by strange, unreadable instructions. Three wizened hags stirring a steaming black cauldron over a roaring wood fire, alternating pinches of dried herbs and odorous animal parts. A clunking junker of an automobile, slowly wheezing along on square tires, occasional sheets of paper floating out a rear window from the reams piled on the back seat.

What these strange images have in common is they are mysterious, out of the ordinary. The rulemaking process often suffers the same misunderstanding: It appears arcane until its logic and labor are revealed. In fact, the rulemaking process is a drama with many players and many chances for the audience to determine the outcome.

ACT I: The Beginning

The U.S. Coast Guard rulemaking process is actually a dynamic, disciplined set of tasks performed by a team of specialists with the ultimate objective of supporting the Coast Guard’s strategic roles of maritime safety, maritime security, maritime mobility, national defense, and protecting natural resources.

A Coast Guard rulemaking can be started in one of many ways:

- Congress directs the Coast Guard to develop regulations for implementing statutory requirements.
- Our status as an active member in the International Maritime Organization leads us to write regulations implementing treaty provisions.
- Sometimes, regulations must be developed to accommodate technological advances.
- Unfortunately, accidents can reveal a weakness or gap in existing regulations that needs to be remedied.
- Any member of the public can petition the Coast Guard to create regulations.
- Somebody comes up with a good idea.

**Scene I: Says Who?**

Any of these occurrences can spark the rulemaking engine. However, the Coast Guard does not always have discretion to write regulations. The Coast Guard’s authority to develop and issue regulations is generally delegated from the Secretary of Homeland Security to the Coast Guard Commandant.

The Administrative Procedure Act (APA) is the law under which federal agencies, including the Coast Guard, create the rules and regulations necessary to implement and enforce legislative acts. The other major sources of rulemaking guidance and responsibilities include:

- the Regulatory Flexibility Act, which sets forth the analysis required to determine the impact of rulemaking on small entities;
- the Federal Register Act, which describes rules for publishing documents through the Office of the Federal Register;
- the Congressional Review Act, which allows Congress 60 days to review all new federal regulations and, with passage of a joint resolution (with presidential signature), to overrule a regulation;
- Executive Order 12866, Regulatory Planning and Review, details steps that rulemaking agencies must follow before the regulations they issue take effect.

Each USCG rulemaking project is sponsored by a program technical office such as (but not limited to) marine engineering, naval architecture, pollution prevention and mitigation, vessel inspection processes, or homeland security.

The chief of the sponsoring office, usually a Coast Guard captain or civil servant equivalent, initiates the project by submitting a scoping document to the Coast Guard’s regulatory coordinator, or RegCo. The RegCo records the scoping document in a rulemaking request log and forwards it to the managers of the personnel who will form the rulemaking team.

These resource managers review the scoping document to gain a sense of the nature of the project, subject matter, complexity, and anticipated effort needed to finish the project. Each resource manager assigns an available specialist to the project team. The best person is usually someone with experience commensurate with the expected project challenges and other pressures driving the priority and timing of the project.

**ACT II: The Long Road**

The project rulemaking team consists of a project manager known as the regulations development manager (RDM), technical expert (from the sponsoring office), project counsel, economist, environmental analyst, technical writer, and additional technical experts as needed from other interested offices. In other words, each project team is tailor-made to include the skills needed to achieve the objectives of the program office sponsoring the rulemaking project. Specialists such as statisticians, graphic artists, and representatives from other agencies may be called upon to augment the core project team.

The RDM creates an electronic space to maintain the working files and other documents related to the project for the administrative record, the project history that includes everything a rulemaking agency considers in reaching its decisions. In this folder, the team members will keep research results, data analyses, draft regulations, press releases, and any other information relevant to the project. The subfolders in the main project folder follow a standard configuration so that someone unfamiliar with the project can easily retrieve information.

**Scene I: Plan the Plan**

The project team’s first action is to hold a kickoff meeting. This is potentially the project team’s most critical gathering. The goal of this meeting is to reach agreement on how the team will work together over the duration of the project.

This is one of the more complicated challenges the team will face because, with a minimum of five persons, there are many personalities, preferences, skill sets, levels of expertise, and expectations to accommodate. The team members discuss each others’ roles, communication, responsibility for particular rulemaking tasks, coordinating review and comment on draft documents, version control, policy development, the importance of
planning and deadlines, legal requirements, file naming conventions, and other ground rules for working together as a team. The result is an informal contract among the team members.

Scene II: Work the Plan
After passing the crucial milestone of agreeing on the ground rules, the team begins developing the project work plan. This document is a road map for how the team intends to complete the project and describes the need for the project, the proposed regulatory policy, a preliminary economic and environmental analysis, the estimated impact on the regulated public and Coast Guard resources, whether an outside contractor is required, and a notional schedule for completing the project. The plan also includes the results of the ranking scheme used to prioritize this project against the many rulemaking projects being worked on by other teams. The project’s priority ultimately determines whether and when resources will be obligated to the project.

The work plan is written to sell the project details, schedule, and rulemaking strategy to the Coast Guard’s regulatory development program managers. It is eventually signed by the same official designated to approve and publish regulations. An approved work plan is authorization for the project team to commence work on developing new regulations in accordance with the details and timetable described in the plan.

Scene III: Significance
The “significance” of a project is a measure of its impact on the public. It is also often a predictor of the complexity of a project and the degree of scrutiny it will receive by the public and reviewing officials. Significance is defined in Executive Order 12866 to mean any regulatory action that is likely to result in a rule that may:

- have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities;
- create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

The cost/benefit profile is the dominant factor in determining significance.

During the work plan phase, the Coast Guard also conducts a preliminary evaluation of a rulemaking project’s potential impact in other important areas.

- **Small entities**: Would this project have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act?
- **Assistance for small entities**: Would small entities need assistance in understanding this proposed rule so that they can better evaluate its effects on them and participate in the rulemaking (Small Business Regulatory Enforcement Fairness Act)?
- **Collection of information**: Would this proposed rule call for a new collection of information under the Paperwork Reduction Act?
- **Federalism**: Would this project have a substantial direct effect on state or local governments and would either preempt state law or impose a substantial direct cost of compliance on them under Executive Order 13132?
- **Unfunded mandates**: Would this proposed rule result in the expenditure by a state, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 or more in any one year under the Unfunded Mandates Reform Act?
- **Taking of private property**: Would this project effect a “taking of private property” or otherwise have implications under Executive Order 12630?
- **Civil justice reform**: Would this project meet applicable standards in Executive Order 12988 to minimize litigation, eliminate ambiguity, and reduce burden?
- **Protection of children**: Would this project create an environmental risk to health or risk to safety that might disproportionately affect children under Executive Order 13045?
- **Indian tribal governments**: Would this project have tribal implications under Executive Order 13175 because it would have a substantial direct effect on one or more Indian tribes, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes?
- **Energy effects**: Would this project have a significant adverse effect on the supply, distribution, or use of energy under Executive Order 13211?
- **Technical standards**: Would this project include use of voluntary industry consensus standards as directed by the National Technology Transfer and Advancement Act?
- **Environment**: Would this project have a significant effect on the human environment under the National Environmental Policy Act?
raise novel legal or policy issues arising out of legal mandates, the president’s priorities, or the principles set forth in this executive order.

Projects that are deemed significant are approved at the Commandant level and must undergo formal review. Projects that do not meet the E.O. 12866 criteria are eligible for a lower level of approval through the Commandant’s delegation of authority. Rules that are not significant under the Executive Order are exempt from OMB review, which then reduces the time for issuance of a regulation.

This intense, up-front effort to develop the work plan is a crucial opportunity for the sponsoring technical office and project team to gain broad policy and impact consensus among project contributors and gauge the public’s reaction to proposed regulations. For example, a preliminary estimate that a project is a significant rulemaking might be an indication that the project will have a greater impact than was anticipated or desired. This would create an opportunity for the sponsoring technical office to revisit its policy for simpler or less costly ways to meet its objectives. It’s a great way to get away from the “do-what-we’ve-done-before” approach.

While most of the Coast Guard’s rulemakings are non-significant, sometimes significance is driven by need or statutory mandate and is unavoidable. In these cases, “significance” must be taken into account by the sponsoring technical office and the project team in planning and developing the new regulations.

Another crucial step in the work plan stage is the search for alternatives to regulations. The Coast Guard enjoys a productive partnership with all affected parties, including industry trade organizations, standards development organizations, and advisory committees. That relationship can often be leveraged to reach non-regulatory solutions to some problems, such as through internal policy guidance, memoranda of understanding, development of industry consensus standards, or even specific, local action at the field unit level. In the Coast Guard rulemaking process, project teams are required to exhaust non-regulatory alternatives before embarking to write new regulations.

**Scene IV: Strategy**

The project team begins in earnest to implement the rulemaking strategy when the work plan has been approved. At the appropriate time, a docket number is assigned and the entry for the unified agenda is completed.

The project team gathers information summarizing the need for regulations, the proposed policy, economic impact, and the public’s likely reaction. These factors are weighed by DHS/OGC and OMB to determine if the rulemaking is “significant.”

If OMB deems the rulemaking significant, the project team takes an approach that is more intense and detailed and undergoes longer clearance, review, and approval time than if it was non-significant. In addition, the project team might also need to hold one or more public meetings to ensure an adequate opportunity for participation and comments.

**ACT III: The Proposal**

In developing the rulemaking strategy, the project team must sort through a number of options connected to the rulemaking timing and level of public participation. The next phase of the rulemaking is typically to publish in the *Federal Register* a notice of proposed rulemaking (NPRM), which contains economic and environmental impacts and is used to inform the public about the proposed regulations and to solicit comments that validate or lead to revised requirements. In some cases, the Coast Guard may wish to inform the public about a rulemaking project and solicit feedback without proposing regulations. An advance notice of proposed rulemaking (ANPRM) is prepared for this purpose.

An ANPRM is appropriate when the project team feels that engaging the public early in the rulemaking process could develop critically helpful information. To this end, an advance notice of proposed rulemaking often contains specific questions to help ensure the desired information is obtained. The duration of the comment period is usually 90 days, but it can be lengthened or shortened. The aim is to ensure all public sectors have the opportunity to study and respond to the ANPRM.

If a notice of proposed rulemaking is appropriate, the Coast Guard provides background, justification, impact analyses, and the actual proposed regulatory text for public comment. In one sense, the notice of proposed rulemaking can be thought of as a work plan on steroids because it is a beefed-up, more detailed version, and that is a fundamental characteristic of the Coast Guard rulemaking process—succeeding stages
build on the information developed in the previous stage.

Like the ANPRM, an NPRM is used to urge public participation in the rulemaking process. The rulemaking document may be supplemented with a press release to help raise awareness of the proposed rule. The comment period is usually 90 days and can be shortened if the public has been informed about the subject matter earlier through, for example, an advance notice of proposed rulemaking or a non-rulemaking notice published by the Office of the Federal Register. In general, the length of the comment period is chosen to strike a balance between the desire to maximize public involvement and the need to maintain the project’s momentum.

ACT IV: Decisions, Decisions
During the comment period, the project team gathers, collates, and analyzes the responses. If necessary, the economic and environmental analyses and technical policy are reviewed. The project team is faced with yet another set of decisions once all the comments (which might be positive, negative, or neutral) have been received and processed, and the lessons have all been learned.

Does the proposed policy hold up to public scrutiny? Or is a change of policy needed? If so, how far back in the rulemaking process does the project team need to go to satisfy the concerns, if any, expressed through public comment?

If necessary, the project team returns to the beginning of the rulemaking process and re-examines the scope and nature of the project. In fact, in addition to public comment, any of the many initiators of a rulemaking could influence the project while it is being developed, for instance:

- Congress revises the authorizing statutes.
- A marine accident focuses attention on a particular part of existing regulations.
- A new industry consensus standard is developed.
- IMO adopts a related new resolution.
- Technology changes.

Scene I: A Second Chance
A significant change in policy could cause a rulemaking project to be withdrawn and restarted. It is more common, though, for the project team to decide to develop a supplemental notice of proposed rulemaking (SNPRM) when the lessons learned from public comments warrant a major change in policy.

An SNPRM is another chance to solicit public comment on revised policy. The project team processes a supplemental notice of proposed rulemaking with exactly the same procedures as the original notice of proposed rulemaking. A rulemaking document is drafted that responds to public comments to the original NPRM, undergoes an internal review and approval process, including OMB review for significant rules, and, after being published in the Federal Register, the public has a fixed period to submit comments.

The comments are documented, analyzed, and compared to the proposed policy described in the SNPRM. Although rare, if the Coast Guard is still experiencing a disconnect and numerous adverse comments are being received, it is almost imperative that the project team pause, take a deep breath, and figure out what is missing.

Usually, the Coast Guard conducts a thorough internal review and engages in enough public outreach before and during policy development that a final rulemaking document can be crafted after the notice of proposed rulemaking comment period. This is where the project team’s intensive fact-finding, calculating, debating, and planning in the early stages of the rulemaking pays off. The project team can now concentrate on finishing the project with a final rule.

ACT V: The Final Rule
In the final rule, the project team responds to the public’s comments. At this point, policy changes are more for fine-tuning than substantial revision.

The final rule, though the last stage of the rulemaking process, undergoes the same detailed review, clearance, and approval process as in the earlier stages. The final rule is ready to be forwarded to the Coast Guard approving official for signature, OMB approves the rule if it is significant, and then it is sent to the Office of the Federal Register for publication.

The project team reaches the penultimate stage in the rulemaking process when the final rule is given to the Office of the Federal Register and another press release is issued. Rulemaking documents usually publish within a week after they are sent to the Office of the Federal Register. The project team proofreads the published version, compares it to the original, and pub-
The typical Coast Guard rulemaking process follows a standard set of steps.

1. Scoping document
2. Work plan
3. Notice of proposed rulemaking
4. Public comments
5. Final rule

There are many opportunities to deviate from this algorithm. As mentioned before, an ANPRM might be desirable in the early stages to gauge public opinion, and one or more supplemental notices of proposed rulemaking might follow an NPRM because of public comment. There are also several paths to the final rule stage that depend on the nature of a project and the degree of urgency for new regulations.

Some projects are of such a limited and straightforward scope that public comment is not needed. Rulemakings to change the addresses of Coast Guard field units and similar projects that do not involve policy decisions fit this category. In these cases, a project might progress from the work plan stage directly to a final rule without a proposed rule and solicitation of public comment.

**Direct Final Rule**

A direct final rule (DFR) might be sought when the scope of a rulemaking project is greater than a technical amendment, but still of a routine and non-controversial nature and is not expected to draw adverse public comment. A DFR might be used, for example, to remove regulations for equipment that is no longer carried aboard vessels.

A direct final rule becomes effective on a specified future date and includes a comment period. If no substantive adverse comments are received during the comment period, the public is given notice that the DFR is effective. If even one substantive adverse comment is received, the direct final rule must be withdrawn and published as a proposed rule.

**Interim Rule**

The Administrative Procedure Act also recognizes the advantages of publishing regulations that have the immediate force and effect of a final rule while soliciting public comment. An interim rule can be developed when a proposed rule is unnecessary and contrary to the public interest. As with a DFR, a demonstration of “good cause” must be included in the preamble of the interim rule. The Coast Guard solicits public comment on the interim rule, then follows with publication of a final rule that might contain revisions to the IR based on the results of public comments.

**Negotiated Rulemaking**

There is even a process for establishing a negotiated rulemaking committee1 of interested parties when it is in the public interest. Though this process is rarely used, the Coast Guard can consider a negotiated rulemaking when:

- there is a need for a regulation;
- there are a limited number of representatives for identifiable parties affected by the regulations;
- there is a reasonable chance that balanced representation can be reached in the negotiated rulemaking committee and that the committee members will negotiate in good faith;
- there is a likelihood of a committee consensus in a fixed time period;
- the negotiated rulemaking process will not unreasonably delay the regulations;
- the Coast Guard has resources to do negotiated rulemaking;
- the Coast Guard can use the consensus of the committee in formulating the NPRM and final rule.

**Endnote:**

1 A negotiated rulemaking committee can be established under the Negotiated Rulemaking Act of 1990 and the Federal Advisory Committee Act.

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**Scene I: Finally Final**

Usually, the final rule becomes effective 30 days after publication to give the affected parties time to plan and prepare for any new requirements. This is a requirement under the Administrative Procedure Act. Also, the Congressional Review Act requires a 60-day delay of the effective date for “major” rules. This preparation process is helped by the Coast Guard’s outreach efforts.

And, though it becomes effective 30 days after publication, a final rule often contains a phase-in period for major new requirements. The Coast Guard makes every effort to ensure the public has adequate time to understand new regulations and work out a compliance strategy.

Upon publication of the final rule, the project team usually dissolves. The members continue working in their other teams to advance the Coast Guard’s varied projects through the rulemaking process.

**ACT VI: Structure and Reason**

All steps in the Coast Guard rulemaking process are documented in the Coast Guard’s Regulatory Development Program Mission Management System (MMS). The MMS’s objective is to keep the rulemak-
ing process “lean and hungry” by standardizing forms, specifications, procedures, roles, and responsibilities throughout the rulemaking process. The critical systems necessary for continuous improvement, such as implementation, auditing, and feedback, are embedded in the MMS. The scores of participants in the MMS provide a constant flow of suggestions and lessons learned.

As a result of lessons learned, the Coast Guard has taken numerous steps to streamline the rulemaking process. These include broadening signature authority to the directorate level. This action of empowering capable, experienced program directors streamlines the internal clearance period by weeks.

Scene I: Improving the Process

Communications links among the project teams and decision makers have also been bolstered to help ensure policy debate and validation takes place at the earliest stages. New management best practices have been implemented, including instituting comprehensive metrics for self-auditing. Tiger team procedures have been developed and tested to ensure a fast response when regulations are needed to address an immediate safety, security, or environmental protection issue.

The Coast Guard has experimented with the feasibility and logistics of using social media as a means of enhancing public outreach. Numerous working groups evaluate every aspect of the rulemaking process for additional efficiencies. The Marine Safety and Security Council, the Coast Guard’s high-level rulemaking oversight body, has committed to building a program of transparency, accountability, and improvement.

In the past year, new positions have been added to the rulemaking development staff at Coast Guard headquarters. This resource infusion raises the total number of people engaged in supporting the technical offices’ rulemaking projects to over 70 and doubles the number of projects the staff can work on simultaneously to about 50. It is a huge resource commitment and a clear indicator of the Coast Guard’s commitment to a solid and responsive regulatory development program. This allows project teams, support staff, resource managers, and decision makers to focus less on working through the routine administrative aspects of rulemaking and more on the crucial tasks of engaging the stakeholders and developing sound, justified policy.

Epilogue

It might seem at times that the rulemaking process, with its multiple players and many decision points, is like a game where the participants (the rulemaking staff) make decisions based on the many options of a 12-sided die. This analogy is sometimes painfully accurate in the twists and turns, forwards and backs, delays and pressures a rulemaking project can experience through inception, scoping document, work plan, proposed rules, and publication of the final rule.

There are many, many layers of accountability that influence the content and pace of rulemakings. However, the rulemaking process is designed to be a well-considered labor and a public/private partnership, so that the public is not burdened without benefit and everyone involved strives to find that “sweet spot” where government and public needs are perfectly balanced.

About the author:

Mr. Roger Butturini is a retired Coast Guard officer who has been involved with the Coast Guard’s regulatory development program since 1991. He holds a BS in civil engineering, an MS in naval architecture and marine engineering, and a professional engineer’s license in mechanical engineering.

Endnotes:

1. The Secretary of Homeland Security has delegated to the Commandant authority to develop and issue regulations. The Commandant has redelegated authority to develop and issue non-significant rules and regulations to the Assistant Commandant for Marine Safety, Security and Stewardship and the director of the National Pollution Funds Center. The Assistant Commandant for Marine Safety, Security and Stewardship has redelegated authority to develop and issue non-significant rules and regulations to any director within this directorate and any other assistant commandant as appropriate. Coast Guard district commanders also have redelegated authority to issue regulations such as for anchorage grounds, drawbridge operations, and safety and security zones.

2. The docket is the formal inventory of materials related to a rulemaking. The docket for all rulemakings is available for public inspection at www.regulations.gov.

3. Executive Order 12866 requires that all federal regulatory agencies publish a list of anticipated rulemaking actions for the following 12-month period. The activities included in the agenda are primarily those for which an advance notice of proposed rulemaking, proposed rule, or final rule would be published within the next 12 months. The Office of the Federal Register National Archives and Records Administration (NARA) publishes the Unified Agenda in the spring and fall.
Proceedings Spring 2010

Thumbing through back issues of Proceedings and you will find that the Coast Guard has been concerned about regulatory reform since at least 1996, when the article “U.S. Coast Guard Regulatory Reform” appeared in the journal’s January/February issue.

Cynics might ask: “Aren’t you done yet?”

**Initial Focus**

Well, yes and no. According to the 1996 article, the focus of reform in the 1900s—what we might call “Reform 1.0”—was to reduce the cost of regulatory compliance and improve the competitive position of the U.S. maritime industry.

The priorities included:

- providing more options for regulatory compliance,
- implementing “prevention through people” principles,
- taking a more risk-based approach to safety management.

Some of those efforts have either been completed or have assumed different shape in the more globalized climate of the new millennium. However, that effort did little to change the overall structure or culture within which we approach our rulemaking. For that, we need “Reform 2.0.”

**Improving the Process**

Reform 2.0’s focus is much more on the business of making Coast Guard rules—specifically, rules that we write (for the most part in Washington) and that apply beyond a Coast Guard district or sector’s area of responsibility.

If laws passed by Congress have often been compared to sausages (nice to eat, but the product of a process you don’t want to see in action), federal agency rulemaking provides the technical details for implementing a law, and in that sense might be compared to a sausage casserole—again, nice enough to eat, but perhaps a little boring in its creation.

Why, then, would we spend any time revising the recipe? Because the present recipe takes too long to make, and because we can make the casserole taste better by making sure all the ingredients are well prepared. Let’s take a look around the Coast Guard’s rulemaking kitchen.

**The Infrastructure**

Today’s Coast Guard headquarters regulatory development program operates under the general authority of the Administrative Procedure Act (APA), signed into law in 1946. Most Coast Guard regulations are designed to have permanent effect, are published in the daily Federal Register, and then are codified in the Code of Federal Regulations.

However, Coast Guard regulatory activity predates enactment of the APA by more than a century. One of our first major responsibilities for marine safety—to develop crew licensing and vessel documentation requirements—comes from steamboat inspection legislation passed in 1838. Even today, many Coast Guard regulations can be traced back to regulations that were not originally codified in the CFR, and that were issued long before the APA went into effect. We’ll come back to these ancient regulations later on.

The APA enshrined a central principle of modern federal rulemaking: In most cases, the public gets advance notification of a federal agency’s plans to issue a rule and has a chance to comment on those plans before the rule is actually issued and takes effect. As the pace of federal rulemaking picked up throughout the late 20th and early 21st
centuries, this central principle of openness or transparency was bolstered by many additional statutes and presidential executive orders that govern the way federal agencies conduct regulatory activities, and that make rulemaking not only transparent, but “accountable.”

Guidelines
Today, therefore, before any Coast Guard rule is published, we must establish to our own satisfaction, as well as to the satisfaction of the Department of Homeland Security (DHS) and the White House’s Office of Management and Budget, that the rule, among other things:

- Doesn’t impose a “significant” economic impact ($100 million or more in any one year), or that if it does, we prepare both an initial and a final economic analysis to study costs and benefits in detail.
- Is supported by proper environmental justification under the National Environmental Policy Act, which may range from a one-paragraph statement to a multi-volume environmental impact statement.
- Doesn’t exceed our agency “information collection budget.” In other words, it doesn’t ask the public to fill out too many forms or post too many signs, as defined by the Paperwork Reduction Act.
- Doesn’t violate the rights of states, increase the risk of lawsuits, subject people to undue environmental hazards, violate treaties or understandings with Indian tribes, raise the demand for energy, impose arbitrary technical standards, or violate Office of the Federal Register or Government Printing Office style guidelines.
- Makes sense.

Recent Stressors
In addition to this complex web of rulemaking requirements, in the past 10 years the Coast Guard has been subjected to two major changes that affect our specific rulemaking climate. The first resulted from the terrorist attacks on Sept. 11, 2001, and the need to ramp up regulatory measures to protect the nation from seaborne terrorist attack or from terrorists and weapons of mass destruction entering through our ports. The resultant surge in security rulemakings had the effect of delaying ongoing marine safety and environmental protection rulemakings for several years.

Second, in 2003 the Coast Guard was transferred from the Department of Transportation (DOT) to the new DHS. Under DOT, Coast Guard regulators had well-established ground rules and relationships with department-level colleagues. The Coast Guard, working with our new partner agencies within DHS, had to develop new ground rules for moving regulatory projects through a system that must give priority to security matters requiring the full cooperation of all DHS agencies. Understandably, this took some time to accomplish.

What vs. How
Reform 1.0 was all about the “what” of regulatory policy, for example:

- What policy makes sense?
- What alternatives should the public have?
- What resources do technical experts need to make smart policy?

Reform 2.0, by contrast, is about the regulatory “how:”

- How do we justify our regulations so that they can pass legal, economic, and environmental scrutiny against a bewildering backdrop of statutes and executive orders?
- How do we bring program experts, lawyers, economists, environmental analysts, and others together, crossing many lines on the headquarters organizational chart, as effective and efficient rule-making team members?
- How do we juggle resources so that we can respond quickly to a “hot issue” without bringing other important projects to a halt?

Instead of Reform 1.0’s project-by-project approach, Reform 2.0 looks at the issues and needs that are common to all headquarters-led rulemaking projects.

At any one time, the Coast Guard typically has between 70 and 100 of these projects in progress, in various stages of completion. Like any good engineers, Coasties understand that a triangle is the most stable geometric shape—thus, Reform 2.0 stands on three legs: people, processes, and measurement.

People
Until recently, perhaps three dozen Coast Guard members, civilians, or contractors supported the technical experts in developing these rulemakings, with most individuals assigned to multiple projects. Additional congressional funding has allowed us, essentially, to double those numbers in the past two years.

To fill the new billets created for rulemaking, we have hired highly qualified economists (many with Ph.D.s) and experienced lawyers, many from other federal agencies. Training specialists have been added to office staffs to make sure new hires have the training resources they need and the support they deserve as they begin their rulemaking responsibilities. Over the past
The Marine Safety and Security Council initiated the rulemaking review and reform project (RRRP) in late 2008 to develop dozens of specific recommendations that had been established by Coast Guard organizational performance experts.

The recommendations included staff reorganization and billeting ideas, changes to the flow of information about individual projects within headquarters and at the department level, improved accountability for project team members, streamlining and improving the project approval process, acquisition of project tracking and document control software, and the development of new metrics to measure regulatory development program results.

We assembled teams of regulatory development program managers and staff members to develop each of the 27 recommendations and generate additional ideas for improvements in communications, planning, management, IT support, and project team performance. Initial implementation was completed in September 2009.

year, we have managed to fill all our open rulemaking billets and bring the new people up to speed so that they can play their roles as team experts.

Processes
Given Reform 1.0’s focus on improving the outcome in individual rulemakings, in the past it was often enough to invent the right wheel for a project without spending much time looking to see how wheels were made for “unrelated” projects. Reform 2.0, on the other hand, recognizes that the Coast Guard’s multi-mission nature requires us to view all our rulemakings as related. We cannot succeed in all of our missions unless we have the right regulations in place for each mission.

While program technical experts may be concerned only with the details of a single rulemaking, the supporting cast of lawyers, economists, and others needs to identify and maintain the tools of the regulatory trade. Thus, we have developed a “beta version” library of the standard instructions, procedures, and forms that go into the regulatory tool box. These materials are catalogued and maintained in a mission management system that draws on ISO 9001 principles to support all rulemaking team participants. As we make more use of the beta-version mission management system, we are filling gaps, tweaking details, and experimenting with new tools.

Measurement
In addition to documenting our processes, we are examining those processes and looking for significant improvements in several areas. We have met with the rulemaking staffs of other federal agencies to identify benchmark best practices. We are also working with sister agencies within DHS, whose general counsel has identified improvements to department rulemaking practices as a department-wide priority.

Measurement ensures that our rulemaking program keeps up with existing projects and completes new rules before the Coast Guard and the public suffer from their absence. Measurement also ensures that, as new projects are added to the list, stakeholders know what to expect in terms of development timelines.

We are developing timeline norms and refining our existing procedure for prioritizing projects that are too complex to complete in normal timeframes. Although industry and advocacy groups may complain about the time needed to push a rulemaking through to completion, these anecdotal stories have not been backed up by data that allow comparisons on projects of similar scope, complexity, and priority. Now, the Coast Guard, Congress, and the public will have better data to assess Coast Guard results.

New metrics introduced by the Rulemaking Review and Reform Project allow us to track the average duration of a rulemaking project, the resource needs each project will impose on rulemaking staffs, and the time spent revising and perfecting project specifications.

Ultimately, we hope to build enough capacity that we can use our regulatory program to evaluate the great body of existing Coast Guard regulations—11 volumes of the CFR—which gets us back to those ancient regulations we mentioned earlier. We will have the resources to analyze the effectiveness of those regulations, to revisit the premises upon which they are based (often lost to history because the regulation was never discussed with the public under the APA), and to engage with the public in discussing whether and how to revise them.

In addition to improving headquarters rulemaking as it exists today, all three legs of Reform 2.0 lead inescapably to the conclusion that this reform effort will be ongoing, and Congress and the public will be able to hold us accountable for achieving those improvements.

About the author:
Mr. Rich Walter is an attorney advisor in the Coast Guard’s Office of Regulatory and Administrative Law, where he has worked on Great Lakes, commercial fishing, LNG deepwater ports, and the Rulemaking Review and Reform Project. Prior to coming to the Coast Guard in 2001, he worked in the private sector for 25 years, compiling state codes and defending those accused of petty crimes.

Bibliography:
Executive Orders 12866, 13132, 12998, 13045, 13175, and 13211.
Regulations.gov

From paper filing to e-rulemaking.

by Ms. Lesley Mose
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Regulations.gov, also known as the Federal Docket Management System, is a key component of the e-rulemaking presidential initiative. The system, a repository for electronic documentation, provides a means by which federal agencies can process regulations and other pertinent documentation while allowing the public to obtain information and make comments on proposed rules and other documents open for comment.

History
Prior to March 1995, documents such as rulemakings or notices prepared by Coast Guard field units were held in one of many regional agency docket offices. Coast Guard headquarters, on the other hand, was serviced by the Department of Transportation (DOT) docket office. At that time, if members of the public wanted to read a document or comment on a rulemaking, they had to visit an independently operated docket office to read the paper version or submit a paper comment.

In March 1995, while the Coast Guard was a component of DOT, the department implemented the docket management system. DOT also launched the concept of a central docket management facility (which replaced nine independently operated agency docket offices) and formulated the concept of an electronic docket management system.

The central facility initially provided walk-in service windows where documents could be submitted for entry into the electronic docket management system. Eventually DOT made the docket management system Internet-accessible to its components and to the general public. This was a successful predecessor to Regulations.gov.

More Public Participation for Less
As a result, many other federal agencies requested assistance from DOT in creating similar systems. In 2001, DOT reported a reduction in administrative costs of approximately $1.3 million annually, crediting this savings to the reduction in the amount of paper, storage space, and staff previously required.1

Further boosting the push for an electronic docketing system was the tremendous increase in public participation in the rulemaking processes. For example, in 2001, DOT reported that in 1998 it published 137 rules and received 4,341 comments; in 2000 it published 99 rules and received 62,944 comments—an increase of over 1,500 percent. With the reported savings and a huge increase in participation, it seemed only natural that electronic docketing would soon become the norm.

In 1999, Government Executive magazine and the General Services Administration honored DOT’s docket management system with the Government Technology Leadership Award for online government. In 2001, the Government Accounting Office, in reporting on technology-based regulatory innovations, indicated that the system was one that should be modeled by other agencies. At the time, it was suggested that the Office of Management and Budget implement a DOT-type docket system itself that other agencies should emulate. Thus, the idea for Regulations.gov, a central electronic docket for all federal agencies, was born.

And Now to Regulations.gov
On January 23, 2003, the e-Rulemaking program2 and partner agencies launched www.Regulations.gov,

www.uscg.mil/proceedings
which hosts approximately 90 percent of federal rule-making output from more than two dozen federal departments and agencies. The Coast Guard migrated to Regulations.gov in October 2007.

The Federal Docket Management System (FDMS) is publicly accessible at www.Regulations.gov from any computer. In the strictest sense, FDMS actually refers to the agency-only side of Regulations.gov, where the agency handles the review of documents prior to posting them for the public to view. The public can use the public side that is accessible to them via www.Regulations.gov to view, download, and make comments.

About the authors:
Ms. Lesley Mose is a paralegal specialist with the U.S. Coast Guard Office of Regulations and Administrative Law and is the FDMS docket liaison. Ms. Mose is also a Second LT assigned to the U.S. Army Reserve’s 165 QM Group.

Mr. Ken Bryant is an attorney advisor with the U.S. Coast Guard Office of Regulations and Administrative Law. He graduated from the University of Tennessee College of Law and is a licensed Tennessee attorney. He served as a U.S. Navy Judge Advocate for nearly 28 years.

Endnotes:
1. Data in this section provided by Renee Wright, Program Manager for Docket Operations, DOT, from various documents held by Docket Operations, July 21, 2009.
2. The e-Rulemaking program is an E-Government Initiative established in October 2002 designed to promote a more efficient and effective rulemaking process through public involvement.
The Paperwork Reduction Act

Collecting information, collecting your input, protecting you.

by Ms. ESA L. SFERRA-BONISTALLI
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Paperwork, like death and taxes, is pretty much a guarantee in our modern world. And if you have an interest in the Coast Guard’s activities, it is likely that you filled out Coast Guard paperwork because you were required to or because you voluntarily provided it.

To keep the amount of paperwork you fill out for the federal government in check, there is a federal administrative law: the Paperwork Reduction Act (PRA). The PRA requires a federal agency to follow certain procedures before asking you to take the time (and possibly spend money) to provide certain information to that agency. One key PRA procedure requires the agency to solicit your input on its proposal to collect information from you.

The Paperwork Reduction Act also protects you from having to fill out paperwork (or from a penalty for not filling it out) if the federal agency requesting the paperwork has not followed PRA procedures.

PRA History and Purpose
One of the first laws passed by Congress was a paperwork requirement for documenting marine vessels, but Congress did not seem concerned about the burden of paperwork on the public until the 20th century, when it passed the first paperwork law. In 1942, Congress enacted the Federal Reports Act to require better coordination among federal agencies to prevent multiple agencies from requesting the same information from the same groups of people.

Then, in 1980, 1986, and again in 1995, Congress addressed the burden of federal government paperwork on the public by creating, amending, and then reenacting the PRA. Congress’s repeat attention to the issue of paperwork and its burdens in the past three decades shows the need to balance the burden of paperwork with the ne-
cessity of collecting certain information to ensure the government is best serving the public.

The purpose of the PRA today is to minimize the burden of paperwork while maximizing the usefulness of the information collected. To minimize “paperwork burden” on individuals, small businesses, and others, a federal agency must identify the best way to collect necessary information that will require the least “time, effort, or financial resources expended by persons to generate, maintain, or provide information to or for a federal agency.”

The agency must also determine whether the necessary information is already available or already collected by another federal agency. To maximize the usefulness of this information, the agency must ensure that the information has “practical utility,” meaning that the agency will be able to actually (rather than theoretically or potentially) use the information collected in a timely and useful manner. In addition to minimizing paperwork burden and maximizing the usefulness of information, PRA requirements also attempt to reduce the government’s cost to collect necessary information.

USCG Collection of Information

The Coast Guard needs to collect information from its stakeholders and others to fully execute its missions of maritime safety, maritime security, maritime mobility, national defense, and protection of natural resources. Without accurate information from the maritime community about how the industry really works, the Coast Guard cannot safeguard U.S. interests here and abroad.

In case you are not familiar with the type of information the Coast Guard collects, here are a few examples:

- The Coast Guard requires commercial crewmembers to possess and present on demand an acceptable identification to authoritatively verify crewmember identity to improve maritime domain awareness and control vessel and crewmember movement when warranted under the Coast Guard’s maritime security and law enforcement responsibilities. Crewmembers must provide certain information to the Coast Guard to obtain the identification document.
- The Coast Guard also requires any vessel destined for a port or place in the United States to provide pre-arrival messages containing certain information. Coast Guard captains of the port use the advance notice of arrival information for controlling vessel traffic, denying entry to unsafe vessels, targeting vessels for boarding and examination, planning for oil and hazardous substances spills, countering terrorism, fire-fighting contingencies, and controlling the port entry of vessels, which may constitute a threat to the safety or security of U.S. ports.
- To help protect the U.S. environment, the Coast Guard requires the master of certain vessels to provide information to the Coast Guard that details the vessel operator’s ballast water management ef-
forts. Doing so helps prevent the introduction of aquatic nuisance species into U.S. waters.\textsuperscript{11}

Under the Paperwork Reduction Act, the Coast Guard must obtain the approval of the Office of Management and Budget’s (OMB) Office of Information and Regulatory Affairs before collecting information from the public. OMB is charged with the task of making sure federal agencies comply with the PRA and can deny an agency’s request to collect certain information.

Collection of information (COI) under the PRA includes obtaining, soliciting, or requiring disclosure of information, orally or in writing, from the public.\textsuperscript{12} The Paperwork Reduction Act applies to any COI that requires or asks for voluntary submission or disclosure of answers to identical questions or of identical reporting or recordkeeping requirements by 10 or more persons within any 12-month period.\textsuperscript{13}

So the Coast Guard must seek OMB’s approval when it plans to ask for identical information from 10 or more people within one year, such as information to obtain a mariner credential, information in the form of pre-arrival messages, or information about a vessel’s ballast water management. The Coast Guard must also ask for approval if it is going to require that records be kept, such as vessel log books,\textsuperscript{14} or disclose information, such as displaying a vessel’s fire control plan.\textsuperscript{15} The Coast Guard must get OMB’s approval even for requests for non-mandatory information, such as a customer satisfaction survey\textsuperscript{16} or Proceedings’ online subscription form.\textsuperscript{17}

Once OMB approves a collection of information, it assigns an OMB control number, which gives the Coast Guard approval to collect the information covered in the COI, but only for up to three years. Every OMB control number has an expiration date, and the Coast Guard must seek renewal for ongoing or long-term COIs.

To find a list of currently approved COIs, including specific information such as estimated paperwork burdens and expiration dates, visit OMB’s website at www.reginfo.gov.

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**Collecting Your Input**

In order to obtain OMB’s approval, the Coast Guard must first solicit public comments on its collection of information. Once the Coast Guard has a proposed COI (or one for renewal) the Coast Guard publishes a document in the Federal Register announcing that it plans to submit the COI to OMB for its approval or renewal. This may be a notice or a rulemaking document, such as a notice of proposed rulemaking, if the collection of information is associated with a Coast Guard rulemaking project. If the collection is stand-alone (not associated with a rulemaking project), then the Coast Guard opens an electronic docket for the COI and its documents on the Federal Docket Management System at www.regulations.gov. If the COI is associated with a rulemaking, the Coast Guard will put all documents related to it in the electronic docket for that rulemaking.

Regardless of whether the collection is a stand-alone or part of a rulemaking, the Coast Guard specifically asks for comments on:

- the practical utility of the collections—whether the agency will be able to actually use the information collected in a timely and useful manner;
- the accuracy of the estimated burden of the collections;
The best way to submit comments on the COI is through www.regulations.gov, directly into the docket for the COI or the associated rule-making. Comments help the Coast Guard identify issues it may not have been aware of that may have an impact on the persons being asked to provide information. The Coast Guard reviews all comments and may change the COI in response.

Once the Coast Guard has reviewed the comments and made changes, it submits the collection of information to OMB. The Coast Guard publishes another document in the Federal Register announcing that it has sent the COI to OMB and again requests comments.

You may be wondering whether the solicitation of your comments published in the Federal Register is itself a COI since it is presumed to be asking 10 or more people for this identical information. The PRA, like most federal administrative laws, has its exceptions. Seeking public input and asking identical questions of the general public through the Federal Register is, along with other COI-like information requests, specifically exempted from the requirements of the Paperwork Reduction Act.

Protecting You

In addition to requiring that federal agencies provide you with an opportunity to be involved in the approval of COIs, the Paperwork Reduction Act also protects you from a federal agency enforcing an unapproved COI.

Under the aptly named “public protection” provision, an agency cannot penalize someone for not complying with a COI that OMB has not approved. Specifically, if a COI does not have a valid, non-expired OMB control number, the lack of that control number may be raised as a complete defense to any penalty for failure to comply with it.

For example, the public protection provision saved a miner from criminal prosecution for constructing a road on National Forest Service land. This miner had operated a quarry on this land for more than 30 years. Because the quarry was located on National Forest Service land, the miner was supposed to file for and ob-
While it is unlikely that the Paperwork Reduction Act will ever completely eliminate federal agency paperwork, it does provide you the opportunity to become involved in the creation of that paperwork. For more information on the Paperwork Reduction Act and collections of information, see the OMB website at http://www.whitehouse.gov/omb/inforeg_infocoll/.

About the author:
Ms. Esa L. Sferra-Bonistalli earned her Juris Doctorate at the University of Richmond School of Law. Prior to her work at the Coast Guard, she practiced administrative and regulatory law as well as campaign finance law with the Federal Election Commission.

Endnotes:
1. “Registering and Clearing Vessels, Regulating the Coasting Trade, and for other purposes,” 1 Stat. 55 (1789).
2. 56 Stat. 1078.
5. 44 U.S.C. § 3502(2); 5 CFR §§ 1320.3(b) and 1320.5(d).
6. 5 CFR § 1320.5(d).
7. 44 U.S.C. § 3502(11); 5 CFR §§ 1320.3(l) and 1320.5(d).
9. OMB #1625-0113: Crewmember Identification Documents.
10. OMB #1625-0100: Advanced Notice of Vessel Arrival.
12. 44 U.S.C. § 3502(3); 5 CFR 1320.3(c) and (h).
13. 44 U.S.C. § 3502(3); 5 CFR 1320.3(c).
14. OMB #1625-0018.
15. OMB #1625-0033.
16. OMB #1625-0080.
17. OMB #1625-0114.
18. 5 CFR § 1320.3(h)(4). Other examples of information collected that is exempt from PRA requirements is information collected during federal criminal investigations or prosecutions, federal civil actions (including administrative actions, audits, and investigations), and intelligence activities. 44 U.S.C. § 3502(3)(B) and 3518(c)(1); 5 CFR 1320.4(a).
Incorporation by reference (IBR) is the act of including in the Code of Federal Regulations content that is published elsewhere. The legal effect of incorporating a publication by reference is to give the publication the same force and effect as if its content had been published in the Code of Federal Regulations. Using IBR allows the Coast Guard to require compliance with the provisions of certain external standards—for example, National Fire Protection Association standards—that otherwise would be voluntary.

**Purpose**

By law, the Coast Guard must publish rules in the Federal Register, and those rules are then codified in the Code of Federal Regulations. Incorporation by reference creates an exception to this publication requirement for certain material already available elsewhere.

The authority for incorporation by reference comes from the Freedom of Information Act, at 5 U.S.C. 552(a). The pertinent part of the statute reads:

“Except to the extent that a person has actual and timely notice of the terms thereof, a person may not in any manner be required to resort to, or be adversely affected by, a matter required to be published in the Federal Register and not so published. For the purpose of this paragraph, matter reasonably available to the class of persons affected thereby is deemed published in the Federal Register when incorporated by reference therein with the approval of the director of the Federal Register.”

In short, incorporation by reference allows the Coast Guard to give legal effect to certain materials without publishing them. There are numerous advantages to using IBR, including:

- allowing the Coast Guard to use industry standards that are already recognized and accepted;
- reducing repetitious and possibly conflicting requirements for an industry or for individuals;
- reducing the number and length of federal regulations;
- conserving resources, including paper, employee time, and publication costs.

The Coast Guard uses IBR extensively in many of its regulations. In one October 2008 rulemaking entitled “Review and Update of Standards for Marine Equipment,” the Coast Guard amended more than 1,400 IBR citations.

A review of Title 46 of the Code of Federal Regulations shows how numerous industry standards are incorporated by reference in the many varied regulations enforced by the Coast Guard. For example, the marine engineering regulations adopt a great number of industry standards for power boilers, piping systems, and main and auxiliary machinery. Most of the various subchapters that deal with specific vessel types include sections on the standards that are incorporated by reference. Some of the vessel types include tank vessels, cargo and miscellaneous vessels, mobile offshore drilling units, offshore supply vessels, and small passenger vessels.²

The Coast Guard also incorporates by reference industry standards and specifications in fulfilling other non-vessel-specific roles and missions. This mechanism is utilized in such areas as regulating handling danger-
uous cargoes at waterfront facilities and regulating waterfront facilities that handle liquefied natural gas and liquefied hazardous gas. Incorporation by reference can also be found in the regulations governing outer continental shelf activities and the Coast Guard’s boating safety standards.2

**Requirements**

External materials do not take on the force of law unless and until their incorporation into the Code of Federal Regulations is approved by the director of the Federal Register. The director will approve an IBR only if the reference material is eligible. Eligible reference materials are published data, criteria, standards, or illustrations that are reasonably available to and usable by the class of persons affected by the rule.

Incorporation of such material must substantially reduce the volume of material published in the Federal Register and must benefit the federal government and members of affected classes, and it must not reduce the usefulness of the Federal Register publication system.

To incorporate reference material, the Coast Guard submits a written request for incorporation, accompanied by a copy of the material to be incorporated and a copy of the draft rule containing the language of incorporation. The draft regulatory text must specifically identify the materials being incorporated (including the date or the edition of the materials), state where the materials are available for inspection and purchase, and indicate the date the incorporation by reference becomes effective. The request for incorporation must be submitted at least 20 working days before the Coast Guard submits the rule for publication. Once the incorporation by reference request has been approved by the director, the Coast Guard submits the rule for publication in the Federal Register.

**Challenges for the Coast Guard**

Using incorporation by reference is more efficient than creating unique, U.S.-specific standards, in part because IBRs allow regulated entities to comply with industry standards that may be used internationally or may already be used voluntarily in some industries. However, when a document is incorporated by reference, only the specific version incorporated has the force of law. If the Coast Guard seeks to update the material, it must amend the regulation in question and request an updated approval from the director. As a result, IBR sections may become outdated over time because the specific standard incorporated into the Code of Federal Regulations remains the legally binding standard even if amended versions are available to the public, and even if new technology makes the standard obsolete.

The static nature of IBR materials presents archiving challenges within the Coast Guard, in that there is not yet a reference library for the IBR materials. Instead, the materials are very much in use, and multiple copies may move around and between offices on a daily basis. When one division updates its IBR regulations to use a new copy, it may no longer track or keep the old reference material—but that reference material may still be relevant to other IBR sections in use by other offices. The Coast Guard is working to develop a tracking system for these reference materials and improve its reference library.

**How the Public Uses Incorporation by Reference**

The Office of the Federal Register allows IBR information to be published in several different formats, but the Coast Guard most commonly publishes a “centralized” IBR section at the beginning of a part or subpart in the Code of Federal Regulations. Therefore, the reader is likely to see a section titled “Incorporation by Reference.” This section will identify the materials incorporated by reference for that part or subpart, indicate where the materials can be obtained, and, in most cases, list the sections in which the references appear.

Copies of the IBR materials are available through a variety of sources. Legally, the Coast Guard must provide a copy of the reference material to the Office of the Federal Register, which keeps the copy on file and makes it available for public inspection upon request. Agencies must also keep a copy of the reference material for public inspection and include in the draft rule the physical address and phone number for accessing the agency’s copy. Finally, the Office of the Federal Register requires agencies to provide contact information for each publisher of an incorporated item so that the reader may obtain a copy directly through the publisher.

**About the authors:**

Ms. Rebecca Day earned her J.D. at the University of Michigan Law School. Prior to her work at the Coast Guard, she practiced energy and environmental law in the private sector, focusing on issues related to energy facilities, offshore operations, and spill risk management.

Mr. Tom Mielke earned his J.D. at St. Thomas University School of Law after retiring from the Coast Guard. He served as assistant general counsel in the Criminal Appellate Division in Florida for eight years and then was an assistant general counsel for the Department of Highway Safety and Motor Vehicles for two years before returning to the Coast Guard.

**Endnotes:**

1. 46 CFR
2. 33 CFR
What is it?
Ethyl alcohol, also known as ethanol, is the proper name for grain alcohol “spirits.” In academic organic chemistry, this substance is also known as ethyl hydroxide.

The fermentation of sugar into ethanol is one of the oldest chemical processes known to humanity. Since the mid-twentieth century, ethanol has been produced for industrial use as a by-product of petroleum refining. It has since become a partial replacement fuel for gasoline-powered engines. Since most of the ethanol consumed in automotive engines today is derived from plant matter, modern-day gasoline is a partial bio-fuel.

Retail gasoline typically contains 10 percent ethanol. Ethanol, like methanol and other short chemical chain alcohols, absorbs water and also dissolves into water depending on which is the greater molecular quantity. If contact with water is excessive, the quality of ethanol-blended fuel would degrade, but an engine would still run.

For an engine to run on a gasoline/alcohol mixture that exceeds ten percent ethanol, it has to be modified, leading to “flex-fuel” cars. From 1908 until Prohibition went into effect, Model “T” Fords were adapted to run on ethanol by modifying internal engine parts. A hundred years later, we see history repeating itself in order to take advantage of readily available ethanol.

World ethanol production for automotive fuel tripled between 2000 and 2007 from 13 million to more than 41 million metric tons. International trade in ethanol and biodiesel has been small so far (about 2.5 million tons per year over 2006-07), but is expected to grow rapidly in Brazil, which reached a record high of about four million tons of ethanol fuel export in 2008. Brazil is the largest exporter and the U.S. is the largest importer of ethanol. The U.S. also exports a small quantity of ethanol.1

How is it shipped?
In the United States, ethanol is shipped almost exclusively in rail tank cars and in tank barges from the chemical plant where it was produced to the refinery or the gasoline blending plant, where it’s blended with gasoline. Additionally, large quantities of ethanol are shipped from one region to another on tank ships.

Domestic tank vessels are inspected and certificated under Title 46 of the Code of Federal Regulations, Subchapter “D” (rather than subchapter “O”) because alcohol has a relatively low danger threat. If an alcohol-carrying tank ship is of foreign registry, it must have been issued the appropriate certificate of compliance by the Coast Guard, just as an oil tanker would be required to have in order to trade in the United States.

Ethanol is shipped and stored at ambient temperature and atmospheric pressure and, like gasoline and diesel fuel, is never heated prior to being pumped through a hose or pipeline.

Why should I care?
Shipping concerns.
Ethanol is a grade “C” flammable liquid, with a closed-cup (sealed lid) flashpoint of 55°F, meaning it can be expected to be above its flashpoint in warm weather.2 Gasoline is always above its closed-cup flashpoint of -38°F, but automotive diesel fuel is almost always transported and stored below its 125°F closed-cup flashpoint. Therefore, the level of concern among transportation workers handling ethanol is midway between gasoline and diesel fuel.

Ethanol, like other alcohols, is somewhat corrosive. However, there is little concern for the structure of an ethanol-carrying barge or its pumps and piping because the tanks are inspected (for certification) by the Coast Guard and because ethanol is only mildly corrosive.

As far as the stability and seaworthiness of the vessel is concerned, it’s a physical impossibility to overload a barge because the specific gravity of ethanol is considerably lower than fresh water: 0.79 (at 68°F) vs. 1.00. The principal concern is for the flammable vapors.

Fire or explosion concerns.
One characteristic of ethanol vapor that causes concern is the width of its flammable range.3 Ethanol’s range,
from 3.3 to 19.0 percent (by volume in air) is considered somewhat wide in comparison to gasoline’s narrow range of 1.4 to 7.4 percent. The wider the range, the greater the chance of a flammable mixture (of air and vapors) should a leak or spill occur. Since ethanol is heavier than air, its vapor spreads out downwind and downhill, hugging the ground or deck.

There has been only one maritime tragedy during the transportation of ethanol where the U.S. Coast Guard became involved. On February 28, 2004, approximately 50 miles off the Virginia coast, a foreign-flagged chemical tank ship exploded and sank en route from New Jersey to Texas.4

The ship was also certificated to carry methyl tert-butyl ether (MTBE) while trading with the U.S. While en route to Texas, the tanks that had previously contained MTBE were empty, and the crew was engaged in tank cleaning when the incident occurred. The ship sank with 11,500 metric tons of ethanol and 700 tons of fuel. Only six crewmen survived. In a situation like this, the ethanol dissolves into the seawater and evaporates into the air quickly, but the oil slick from the fuel remains an environmental concern for several days. If this had happened in port, in addition to the human tragedy, it would have been an environmental and economical disaster.

► Health concerns.
The short-term exposure limit is 1,000 parts per million (ppm). Exposure to a concentration of ethanol vapor of more than 1,000 ppm may cause headache and eye irritation, which was the case during the rescue operation off the Virginia coast. Exposure to ethanol vapor also causes dizziness, double vision, and other classic alcohol intoxication symptoms. A victim of vapor exposure should always be removed to fresh air.

What is the Coast Guard doing about it?
The Coast Guard monitors ethanol spill statistics. Over the past six years, there have been only two ethanol spills from tank vessels in the U.S. while loading or discharging, and they were both under five gallons. Therefore, there is little concern over the handling of ethanol by the tank barge segment of the maritime industry. Waterfront facilities have averaged exactly one spill a year, and only one of these spills has been more than 100 gallons.

Because industrial ethanol usage (as a bio-fuel) is increasing in society, more ethanol-carrying tank vessels are being inspected for certification, and the number of qualified inspectors in the field is being increased.

About the author:
Brendan Saburn is a captain in the Navy Reserve and a licensed merchant shipmaster—one of three Coast Guard civilians holding this pair of credentials. Prior to Coast Guard employment, he spent more than a decade teaching navigation and other ship operations to prospective merchant marine deck officers. He is presently a maritime safety data analyst in the Office of Investigations and Casualty Analysis at Coast Guard headquarters.

Endnotes:
2. Flashpoint: The lowest temperature at which the vapor can be ignited momentarily. A “closed-cup” (sealed lid) flashpoint tester with a low-mass thermocouple is used. In general, the closed-cup value is 10 to 15°F lower than the “open cup” value.
3. Flammable range: The range of vapor concentration (percent by volume in air) that will burn or explode if an ignition source is present. Limiting concentrations are called the “lower explosive limit” (LEL) and the “upper explosive limit” (UEL). Below the LEL the mixture is too lean to burn. Above the UEL it is too rich to burn.
Field vs. Headquarters Regulations
There is no such thing as a “field regulation” in the Administrative Procedure Act. The Coast Guard refers to regulations as “field regulations” or “headquarters regulations” depending on what office originates the regulation and the regulation’s purpose and effect.

Headquarters regulations originate at Coast Guard headquarters and make a nationwide policy change. For example, the Large Passenger Ship Crew Requirements rulemaking is a headquarters regulation. It applies everywhere, to everyone, from this point forward.

In contrast, field regulations originate at a Coast Guard sector or district office, affect a limited geographic area, and are often of limited duration. For example, a safety zone for a fireworks display would restrict travel through the area around the fireworks launching point during the launching. Of course, there are exceptions to every rule. For example, the Great Lakes Pilotage rate is published in a headquarters regulation despite applying only to maritime pilots in the Great Lakes area. But generally a rule that applies to a limited area and originates “in the field” is a field regulation.

So how does a field regulation come about? For all the technical language involved, each field regulation follows the same three steps: wanting it, writing it, and getting it published.

Who Wants a Field Regulation?
As every kindergartener knows, sometimes you want a little space for yourself. And sometimes, you want to use that space to entertain foreign dignitaries or take 200 of your closest friends for a swim across the Chesapeake Bay. The field regulations process starts with the sponsor and the sponsor’s desire for a little bit of room all to himself.

The sponsor can be anybody—an individual, a company, a non-profit organization, a state or local government, or an agency of the federal government. Sponsors start by deciding what they want to do and when they want to do it, then they get in touch with their local Coast Guard sector or district. The sponsor submits information about the event to the appropriate office (see table next page). That office determines which type of field regulation best meets the needs of the event and drafts the regulation.

Writing a Regulation
The drafting process includes, at a minimum, input from the Coast Guard district legal office and an analysis of potential environmental impact. If applicable, a regulation will also involve economic analysis; consultation with state, local, and/or tribal governments; and a host of other considerations required by statute or Executive Order. Once all the pieces are assembled, the
Draft is signed by either the captain of the port (who is usually also the sector commander) or the district commander. The signed regulation goes to the Office of Regulations and Administrative Law (CG-0943) at Coast Guard headquarters in Washington, D.C.

While the electronic copy of the rule arrives instantly via the information superhighway, the Office of the Federal Register requires an original, signed document (or digital signatures that meet a certain standard not yet supported by the Coast Guard). All mail, even overnight delivery from one Coast Guard unit to another, must pass through DHS mail screening procedures; “overnight delivery” typically arrives in four to seven business days.

**Getting It Published**

At Coast Guard headquarters, the Office of Regulations and Administrative Law reviews the regulation for legal sufficiency, manages submissions to the docket at www.regulations.gov (where regulation-related documents are available for public inspection and comments on the regulation may be made and viewed), and fulfills Coast Guard obligations under the Congressional Review Act.

The headquarters staff also serves as the Coast Guard liaison to the Office of the Federal Register. The Office of the Federal Register manages submissions to the Federal Register and the Code of Federal Regulations. Signed originals, certified copies, and electronic files are delivered by courier.

In addition to the requirements of the Office of the Federal Register, the Congressional Review Act requires an agency to send any final rules to the House of Representatives, the Senate, and the Government Accountability Office. This provides Congress the opportunity to overturn the final rule through its legislative power. Of the approximately 5,200 field regulations published since the passage of the Congressional Review Act in 1996, exactly zero have been overturned by Congress.

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### Table: Type of Field Regulation

<table>
<thead>
<tr>
<th>Type of Field Regulation</th>
<th>Purpose</th>
<th>Example</th>
<th>Coast Guard office</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anchorage</strong></td>
<td>Establish anchorage grounds or special anchorage areas for vessels; establish rules for the anchorage.</td>
<td>Middle Ground Anchorage, Annapolis Harbor, Maryland.</td>
<td>Sector Office, Waterways Division</td>
</tr>
<tr>
<td><strong>Safety Zone</strong></td>
<td>Protect the public from a hazard; for example, fireworks launches, oil spill cleanup, or active search and rescue cases.</td>
<td>The waters of the St. Johns River in Jacksonville, Fla., within 500 yards of the fireworks barge.</td>
<td>Sector Office, Waterways Division</td>
</tr>
<tr>
<td><strong>Security Zone</strong></td>
<td>Protect an asset from harm; for example, a waterfront facility, power plants, or public figures.</td>
<td>The waters of the Susquehanna River near the Three Mile Island power plant.</td>
<td>Sector Office, either the Response or Waterways Division</td>
</tr>
<tr>
<td><strong>Special Local Regulations (Regattas and Marine Parades)</strong></td>
<td>Provide separation between the public and participants in a regatta or marine parade.</td>
<td>Searsport lobster boat races the fourth Saturday in August. No non-participating vessel may enter the competition area.</td>
<td>Sector Office, Waterways Division</td>
</tr>
<tr>
<td><strong>Regulated Navigation Area</strong></td>
<td>Control vessel traffic in an area with a hazardous condition.</td>
<td>Vessels in the Chesapeake and Delaware Canal must travel at no-wake speed.</td>
<td>Sector Office, Waterways Division</td>
</tr>
<tr>
<td><strong>Naval Vessel Protective Zone (NVPZ)</strong></td>
<td>NVPZs are permanent 500-yard rings around large naval vessels (&gt;100-foot).</td>
<td>A 500-yard regulated area around any large (&gt;100-foot) naval vessel.</td>
<td>No originating office. For NVPZ information, contact Sector Office, Response Division.</td>
</tr>
<tr>
<td><strong>Bridge Operating Schedule or Deviation</strong></td>
<td>Establish, modify, or temporarily change (temporary means for less than 180 days) a bridge operating schedule.</td>
<td>The schedule for the Broadway Bridge over the Willamette River is changed to require one-hour notification before opening.</td>
<td>District Office, Bridge Division</td>
</tr>
</tbody>
</table>
Still, two paper copies (and one electronic copy) of each final rule are sent over for every regulation.

**What Do You Get for Your Efforts?**
Regulations published in the *Federal Register* are assumed to be known by all persons, whether they actually read it or not. If a regulation has been published in the *Federal Register*, ignorance of the law is no excuse. If a regulation is not published in the *Federal Register*, the Coast Guard must prove that the mariner knew about the regulation (“actual notice” instead of “constructive notice”) before the Coast Guard may assess a penalty or enforce a notice of violation.

Is it worth the trouble of publishing field regulations? It costs the Coast Guard $489 to publish a page in the *Federal Register*. An average field regulation runs about three pages (often more, occasionally less), and the Coast Guard publishes about 400 field regulations each year. But without publication (and the constructive notice publication conveys), the Coast Guard would have to provide actual notice to any person it wanted to enforce a field regulation against. If the matter ever went to court, the Coast Guard would need the testimony of witnesses who may have transferred or left the service, and those witnesses would have to remember what they said, to whom, and when. Publication (and the constructive notice that comes with it) is as much of an aid in court as it is on the water.

**Finally, Administrative Procedure Act rulemaking is a technical and complicated process.** The reviews provided at the sector, district, and headquarters levels contribute to a more understandable, more effective, and more enforceable regulation.

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**WHAT IS THE OFFICE OF THE FEDERAL REGISTER?**
The Office of the Federal Register (OFR) publishes federal regulations, presidential proclamations, and other documents required to be published by law. The OFR's editors are the last line of defense against error and ambiguity in the *Federal Register* and the Code of Federal Regulations.

OFR is part of the National Archives and Records Administration, so in addition to keeping track of the nation’s critical drawbridge schedule deviations, they also have a copy of the Constitution somewhere.

**WHAT GOES ON AT THE OFR?**
When a rule gets to the Office of the Federal Register, it first goes to the receiving/scheduling unit. This unit is the master of OFR’s tracking system and index, which, considering that OFR published something north of 40,000 separate documents in 2008, is no small task.

Next the document travels to the scheduling portion of that unit, where a scheduling editor ensures (among other things) that the rule is clear in meaning and consistent in form with the rest of the Code of Federal Regulations. Changes to the document are coordinated by the scheduling editor and the agency’s Federal Register liaison, a person designated by the agency to receive feedback and coordinate changes to submissions.

The third OFR stop for documents bound for publication is the daily issue unit, where effective dates and “comments must be received by” dates are inserted and each issue is compiled.

Rule documents that amend the Code of Federal Regulations make a fourth stop at the CFR unit, which publishes both the electronic and paper copies of the Code of Federal Regulations.

**SOME FUN FACTS**
The Coast Guard is one of only two agencies that routinely publish temporary rules of limited geographic area. The other is the Federal Aviation Administration, which publishes temporary flight restrictions prohibiting flight over national security events, natural disasters, and the like. The IRS occasionally issues rules of temporary duration, but since at least one “temporary” rule was in effect for 23 years, its definition of temporary may be different from yours.

Endnote:
How Do I Find Out About Field Regulations in my Area?

Field regulations are published in the Federal Register when they are issued and in each Coast Guard district’s local notice to mariners when they go into effect. The Federal Register is available in paper and electronic form from the Office of the Federal Register (http://www.federalregister.gov). Interested persons may sign up to receive the daily table of contents via e-mail at http://listserv.access.gpo.gov. Local notices to mariners are only available online (the Coast Guard stopped printing and mailing paper copies in 2004) and can be viewed at the Coast Guard Navigation Center (http://www.navcen.uscg.gov/LNM).

Sectors also typically include information about temporary field regulations in their broadcast notice to mariners (BNM) on VHF-FM Channel 16. BNMs are broadcast on a daily schedule and may also be specially broadcast during an event.

So What Happens if Things Go Wrong with a Field Regulation?

A person who violates a Coast Guard regulation may be subject to civil and criminal penalties (see table). But if the Coast Guard makes a mistake in the rulemaking process, then it’s possible the regulation cannot be enforced.

Not every un-dotted “i” or un-crossed “t” is enough to invalidate a field regulation, but significant errors can cause a regulation to be unenforceable. The most common problems are in the signature authority and in the description of the regulated area.

If a field regulation is published with a “fatal” error, it creates an enforceability problem for the Coast Guard. But a regulatory error does not change the nature of the hazard the field regulation is being implemented to address, nor does it invalidate the captain of the port’s inherent authority to order any vessel within the captain of the port zone to stop or move as directed.

About the author:

Since 1999, Kevin d’Eustachio has been part of the Coast Guard in various capacities, including as an intern in the Office of Maritime and International Law, active duty judge advocate (lawyer) at the Maintenance and Logistics Command (Atlantic), and HH-65 helicopter pilot at Air Station Atlantic City. He now works as a civilian attorney in the Office of Regulations and Administrative Law and at the Legal Service Command as a reservist.

Acknowledgments:

Special thanks to Mr. Rich Walter; LTJG Shannon Frobel; Ms. Lesley Mose; Ms. Amy Bunk, Office of the Federal Register; OS2 Victor Vallin; OS2 Lalacia Seale; Mr. Mark Mutchler; CWO Sean McGarigal; and LT Brian Breguet for their help and information.

For Further Reading:

Preparation of Field Regulations, COMDTINST M16704.3A.
The Ports and Waterways Safety Act (33 USC §1221 et seq.)
The Administrative Procedure Act (5 U.S.C. §553 et seq.)
**PENALTIES FOR VIOLATIONS**

Civil penalties for violating a field regulation range from $110 for anchorage regulation violations up to $40,000 for violating a regulated navigation area, safety zone, security zone, or Naval Vessel Protective Zone. Certain willful violations can be Class D or Class C felonies, punishable by prison terms of up to six and twelve years, respectively. Violating a special local regulation can also result in action against a mariner’s credential.

<table>
<thead>
<tr>
<th>Regulation Violated</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>$110 civil penalty</td>
</tr>
<tr>
<td></td>
<td>in rem liability against the vessel</td>
</tr>
<tr>
<td>Safety Zone</td>
<td>up to $40,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>for willful violations: Class D felony</td>
</tr>
<tr>
<td></td>
<td>for willful violation where you carry a dangerous weapon and assault or threaten to assault an officer: Class C felony</td>
</tr>
<tr>
<td></td>
<td>in rem liability against the vessel</td>
</tr>
<tr>
<td>Security Zone</td>
<td>up to $40,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>for willful violations: Class D felony</td>
</tr>
<tr>
<td></td>
<td>for willful violation where you carry a dangerous weapon and assault or threaten to assault an officer: Class C felony</td>
</tr>
<tr>
<td></td>
<td>in rem liability against the vessel</td>
</tr>
<tr>
<td>Special Local Regulation</td>
<td>licensed officer: revocation of license due to incompetency or misconduct</td>
</tr>
<tr>
<td></td>
<td>unlicensed person in charge of navigation: $8,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>owner of vessel on board and aware of violation: $8,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>any other person: $3,000 civil penalty</td>
</tr>
<tr>
<td>Regulated Navigation Area</td>
<td>$40,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>for willful violations: Class D felony</td>
</tr>
<tr>
<td></td>
<td>for willful violation where you carry a dangerous weapon and assault or threaten to assault an officer: Class C felony</td>
</tr>
<tr>
<td></td>
<td>in rem liability against the vessel</td>
</tr>
<tr>
<td>Naval Vessel Protective Zone</td>
<td>up to $40,000 civil penalty</td>
</tr>
<tr>
<td></td>
<td>for willful violations: Class D felony</td>
</tr>
<tr>
<td></td>
<td>for willful violation where you carry a dangerous weapon and assault or threaten to assault an officer: Class C felony</td>
</tr>
<tr>
<td></td>
<td>in rem liability against the vessel</td>
</tr>
<tr>
<td>Bridge Operating Schedule or Deviation</td>
<td>civil penalty up to $25,000 per day</td>
</tr>
<tr>
<td></td>
<td>misdemeanor criminal offense</td>
</tr>
<tr>
<td></td>
<td>fine between $1,000-$5,000</td>
</tr>
<tr>
<td></td>
<td>up to one year in prison</td>
</tr>
</tbody>
</table>

**Endnotes:**

1. Inflation-adjusted civil penalties are authorized by the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended, and are listed in 33 CFR §27.3. The civil penalties at 33 CFR 27.3 were recently revised at 74 Fed. Reg. 245 (December 23, 2009). The penalties for Class C and D felonies are listed at 18 U.S.C. §3851.
2. “In rem” liability means “against a thing,” which allows the plaintiff to seize the thing involved in the claim to satisfy the judgment.
3. Bridge civil and criminal penalties are listed at 33 U.S.C. §§495 and 499.
The Marine Safety and Security Council (MSSC) has an important oversight role in the Coast Guard’s regulatory development program. As the Commandant’s advisory body for all Coast Guard regulatory initiatives, the council approves all new rulemaking projects, amendments to active rulemaking projects, and suspension or termination of inactive rulemaking projects. The MSSC also provides policy and procedural guidance to program managers and rulemaking teams responsible for developing Coast Guard rulemaking projects.

History
The council traces its roots to the Merchant Marine Council, which was created in 1943 to advise and assist the Commandant on matters relating to navigation and maritime safety. The formation of the Merchant Marine Council coincided with the transfer of the safety and navigation functions of the Bureau of Marine Inspection and Navigation to the Coast Guard, marking the first time in U.S. history that all functions of maritime safety came under one agency.

In 1971, the council changed its name to the Marine Safety Council following a Coast Guard reorganization. In 2003, after the Coast Guard’s move to the new Department of Homeland Security (DHS), the Marine Safety Council became known as the Marine Safety and Security Council.¹

Members
There are four voting members and some non-voting members who advise the voting members. The four voting MSSC members are:

- the Judge Advocate General, who also serves as the chairman;
- the Assistant Commandant for Marine Safety, Security, and Stewardship;
- the Director of Commercial Regulations and Standards;
- the Director of Prevention Policy.

Non-voting members include:

- the Assistant Commandant for Resources,
- the Director of Governmental and Public Affairs,
- the Director of the National Pollution Funds Center,
- ad hoc members.

The MSSC may invite other assistant commandants or flag-level or senior executive service officials to serve as ad hoc members to advise the MSSC on rulemaking projects affecting or originating within their respective areas of responsibility. To ensure vertical alignment and to promote the harmonization of departmental priorities, the MSSC invites DHS representatives to participate at its meetings.

Council Support
Other individuals assisting the council include the executive secretary (ExecSec), the legal advisor, and the chief of the Office of Standards Evaluation and Development.

The executive secretary is a staff member of the Coast Guard Office of Regulations and Administrative Law, designated by the Judge Advocate General of the Coast Guard to be the administrative coordinator of the MSSC. The ExecSec facilitates the flow of information to and from the MSSC and Coast Guard regulatory development program personnel, including the transmission of regulatory documents, work plans, and reports. The ExecSec also serves as a liaison between the Proceedings magazine staff and the council members and participants.

The chief of the Office of Regulations and Administrative Law serves as the legal advisor to the MSSC. Among other things, the legal advisor coordinates with the Office of Management and Budget (OMB) and the Department of Homeland Security’s Office of General Counsel to ensure all Coast Guard rulemaking projects are reviewed by appropriate government personnel. The
KEY DEFINITIONS:

Rulemaking or Regulatory Action. A rulemaking or regulatory action is “any substantive action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking.”

Significant Rulemaking Project. A significant rulemaking project is any rulemaking that is defined as a “significant regulatory action” by OMB in accordance with the criteria in E.O. 12866. Significant rulemaking projects are reviewed by OMB. Under Coast Guard policy, all significant rulemaking projects require approval by the MSSC and the Commandant.

Work Plan. A work plan is an internal planning document that defines the rulemaking project and ensures the proper resources will be available to the rulemaking team.

Endnote:
1 E.O. 12866 Sec. 3(e).

...impact assessments, and incorporation by reference.

Duties

The MSSC members have responsibilities as the Commandant’s advisory body and as individual members. Collectively the MSSC reports to the Commandant on the status of all Coast Guard headquarters regulatory projects and approves or recommends Commandant approval of new projects.

The MSSC develops and promulgates strategic priorities for the Coast Guard’s rulemaking program while also monitoring the progress of rulemaking projects and recommending appropriate courses of action to ensure projects get completed. The MSSC members review and clear all rulemaking documents categorized as significant as well as all work plans and work plan changes. The council also makes decisions regarding Proceedings magazine.

The MSSC must convene at least annually to discuss past year regulatory performance issues, discuss current year regulatory performance issues and associated resource needs, vote on rulemaking project prioritization, establish strategic priorities, and determine a recommended course of action based on their discussions and voting. Typically, the MSSC holds quarterly meetings to monitor progress on major rulemakings and other strategic priorities. The MSSC may also hold additional meetings to address issues identified by a voting member.

MSSC meetings are not open to the public. However, the public is made aware of current Coast Guard rulemaking projects listed in the Unified Regulatory Agenda, a document published in the Federal Register twice a year (usually in April and October) by the Office of the Federal Register, which summarizes the rules and proposed rules that each federal agency expects to issue during the next year. The Unified Regulatory Agenda is available online at http://www.reginfo.gov.

Public Participation

Public participation is facilitated primarily by describing proposed rulemakings in the Unified Regulatory Agenda and publishing proposals and other notices in the Federal Register. Upon publication of the proposed rulemakings, interested members of the public have the opportunity to participate in the process by submitting written comments to the public docket and providing oral and written comments at a public meeting, if one is requested and held.

Also, any member of the public may petition an agency for a rulemaking. The Coast Guard regulation governing petitions is 33 CFR 1.05-20, which advises the public to send petitions and supporting information to the MSSC ExecSec. Upon receiving a petition, the ExecSec coordinates to have an electronic docket opened and forwards the petition to the relevant program office for a response. The petition and the Coast Guard’s response to the petition are placed in the public docket.

Due to the importance the Commandant has placed on the Coast Guard regulatory development program, the MSSC directed that this edition of Proceedings be devoted to rulemaking topics to explain the various aspects of the process leading to new or revised regulations that ultimately will enhance marine safety, maritime security, and environmental stewardship.

About the author:

CDR Skolnicki is currently the MSSC executive secretary. Previously he was a Coast Guard liaison officer at the State Department, Office of Oceans Affairs. He is a member of the Pennsylvania bar and a graduate of Duquesne University School of Law. After earning a bachelor’s degree in Business Administration from the University of Notre Dame, he served in the U.S. Navy aboard the USS Moinester (FF-1097).

Endnote:
The Value of Voluntary Consensus Standards

by Mr. Howard L. Hime
former Chief, U.S. Coast Guard Office of Standards Evaluation and Development

Standards are a key element of the U.S. Coast Guard’s strategic plan for maritime regulatory reform. This position was firmly established in 1994 when RADM A. E. Henn signed COMDINST 5420.32, outlining the policy and goals of the standards program for the Coast Guard’s Marine Safety, Security, and Environmental Protection program. RADM Henn stated:

“The Office of Marine Safety, Security, and Environmental Protection is committed to developing nationally and internationally recognized standards as a means to improve maritime safety and marine environmental protection, and to promote an internationally competitive U.S. maritime industry.”

More recently, standards development was identified as a key element of the Coast Guard’s Marine Safety program in the 2009-2014 Marine Safety Performance Plan. In developing standards, however, the Coast Guard’s goal is not only to ensure safety but also to see that the standards developed do not put U.S. industry at a competitive disadvantage.

Two Centuries of Protecting Life and Property at Sea
For over 200 years the U.S. Coast Guard has been responsible for the protection of life and property at sea. The USCG is charged with directing a coordinated federal program for commercial vessel safety, port safety, security, and environmental protection. In order to meet this mandate, the Coast Guard is responsible for enforcing applicable federal laws, developing regulations necessary for implementing these laws, negotiating and enforcing international treaties, and representing the United States and Coast Guard interests in national and international forums.

Reactive Regs
Historically, the regulatory process for marine safety has been characterized as a response to disaster. The advent of steam propulsion in the early 1800s brought numerous shipboard boiler explosions with tragic loss of life. With public concern at a high level, Congress took action by passing the Steamboat Inspection Act of 1838 and a series of other laws that resulted in regulations aimed at reducing the number of shipboard explosions and resultant fatalities.

Similarly, the sinking of the Titanic and its considerable loss of life pointed out the need for improved lifesaving capabilities and improved stability and watertight subdivision requirements. Again, public concern stimulated congressional action which resulted in additional regulations. The burning of the Morro Castle, again with significant loss of life, brought about improved fire protection regulations.

Each of these marine disasters resulted in comprehensive regulations to address the hazard and minimize its recurrence. In the absence of a broad base of industry consensus standards, extensive and detailed regulations were drafted and enforced.

Voluntary Standards
The expansion of trade horizons and burdens on the industry associated with variations in safety standards imposed by various jurisdictions helped advance the concept of voluntary standardization developed by in-
While the Coast Guard’s efforts to adopt voluntary consensus began in the 1960s, our efforts today are guided by OMB Circular A119.

This circular establishes policies to improve the internal management of the executive branch and directs agencies to use voluntary consensus standards in lieu of government-unique standards, except where inconsistent with law or otherwise impractical. It also provides guidance for agencies participating in voluntary consensus standards bodies and describes procedures for satisfying the reporting requirements in the National Technology Transfer and Advancement Act of 1995.

The policies in it are intended to reduce agencies’ reliance on government-unique standards to a minimum, noting that many voluntary consensus standards are appropriate or adaptable for the government’s purposes. In the circular, OMB cites the use of such standards, whenever practicable and appropriate, is intended to achieve the following goals:

- Eliminate the cost to the government of developing its own standards and decrease the cost of goods procured and the burden of complying with agency regulation.
- Provide incentives and opportunities to establish standards that serve national needs.
- Encourage long-term growth for U.S. enterprises and promote efficiency and economic competition through harmonization of standards.
- Further the policy of reliance upon the private sector to supply government needs for goods and services.

Industry associations and professional societies. As the concept evolved, many of these voluntary standards gained acceptance as “national” standards and became suitable for incorporation into federal regulations.

In earlier efforts to incorporate voluntary standards, administrative procedures dictated that they be reproduced in part or in full as regulations. It was not until 1968 that the concept of incorporation by reference (see related article in this issue), where a voluntary standard is invoked in the regulations and identified only by name and edition, enabled the Coast Guard to realize the full benefit of using non-government standards.

Employing this method, the Coast Guard adopted well over 100 industry standards in 1968 and continued to add more each year. While the Coast Guard accepted certifying marks for many piping and electrical components, we retained direct involvement in shop inspection and plan approval for many others, such as boilers and pressure vessels.

Over the ensuing years the Coast Guard became more involved with standards committees such as the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PV). With each committee, Coast Guard representatives lent their experience in the field of marine safety, ensuring that their associated concerns were taken into account. In addition, the Coast Guard grew more familiar and confident with the development and implementation of the standards and began replacing Coast Guard plan approval and shop inspection with certification by independent third-party organizations. The Coast Guard’s first major effort came in 1982 when we adopted the ASME B&PV symbol stamp as assurance of compliance with the necessary safety standards.

Regulatory Reform

From 1968 to 1995 all standards the Coast Guard adopted were American National Standards. In 1995 the Coast Guard began an effort known as regulatory reform to look at our regulations, eliminate those that were outdated or inefficient, and adopt international standards where possible.

As an example of the Coast Guard’s regulatory reform effort, in 1996 the Coast Guard revised its electrical regulations, adopting 86 new standards, including 32 standards developed by the International Electrotechnical Commission and 12 standards developed by the European Committee for Standardization.

Role of Government in Voluntary Consensus Standards

While the adoption of industry standards enables the Coast Guard to fulfill its regulatory functions more efficiently, this capability would be useless without meaningful standards. Recognizing this early on, the Coast Guard aggressively pursued membership in a wide range of relevant standards organizations. Today the Coast Guard supports about 30 non-government organizations and actively participates on more than 100 standards committees. This active participation enables the Coast Guard to raise genuine issues of public safety and preservation of the marine environment. Additionally, where industry has not established suitable safety requirements, the Coast Guard catalyzes their development.

Becoming an integral part of this process has enabled the Coast Guard to avoid drafting unnecessarily de-
tailed regulations, and, in some cases, to avoid regulation completely. It has also helped the Coast Guard to evolve from a reactive regulatory process that responds to disaster to a more structured and proactive process that recognizes technical innovation and progressive ideas aimed at preventing disaster.

To date, the Coast Guard has adopted approximately 450 industry standards. This saves potentially thousands of pages of federal regulations and the associated regulation maintenance while specifying standards already familiar to the regulated industry. The Coast Guard estimates that participation on standards committees saves the Coast Guard over $1.5 million annually and creates a significant force multiplier for its inspection and technical force.

For example, when a Coast Guard representative goes to a committee meeting, he or she typically has up to 100 experts working to develop requirements that may either be adopted in a Coast Guard regulation or prevent the need for a regulation. When the Coast Guard adopts certifying marks such as ASME’s B&PV Code symbol stamp or UL’s mark, the Coast Guard gains the benefits of hundreds of inspectors and lab technicians working to ensure compliance with Coast Guard requirements.

Develop Compatible Standards
One of the goals of the Coast Guard’s program is to develop a comprehensive set of internationally recognized internationally compatible standards through active participation in national standards organizations.

With the help of industry, the Coast Guard has developed a number of standards to meet requirements of international conventions, such as the International Convention for the Safety of Life at Sea and the International Convention for the Prevention of Pollution from Ships.

For example, through American Society for Testing and Materials (ASTM) Committee F25 on Ships and Marine Technology, the Coast Guard formed a working group to develop standards for shipboard incinerators. The Coast Guard recruited representatives from Japan and Europe to participate to ensure the standard’s international acceptance. This standard was developed in two short years and has been adopted by the International Maritime Organization (IMO) and the International Organization for Standardization (ISO).

Other ASTM standards used by the Coast Guard address such equipment as watertight doors, metallic and plastic pipe, and pipe fittings. In addition, the Coast Guard has redrafted several national standards to propose as international ISO standards.

The Coast Guard has spearheaded an effort to get ASME to adopt in their codes foreign material standards such as British, Canadian, Japanese, German, and Chinese standards. This effort will further enhance the international acceptance of ASME codes and standards and improve the competitiveness of U.S. manufacturing and shipping.

Recognized Standards
Another goal of the standards program is to develop a comprehensive set of internationally recognized standards through active participation in IMO and other international standards making organizations.

The Coast Guard is continuing to work at the International Maritime Organization to “level the international playing field” by raising international safety requirements to the level expected by the American public. In
addition, the Coast Guard is working to eliminate ambiguous requirements in SOLAS, such as phrases like “subject to the satisfaction of the administration.” In this regard, the Coast Guard is working to increase IMO’s acceptance of standards developed by other organizations. A good example is IMO’s acceptance of the shipboard incinerator standard developed by ASTM and embraced by the International Organization for Standardization.

Aid Commerce
The standards program also seeks to improve the competitiveness of the U.S. maritime industry by removing regulatory and other barriers that impede productivity and a free flow of commerce.

This goal is being achieved by using internationally and nationally agreed-upon industry consensus standards as alternatives to regulations and by promoting performance-based standards rather than detailed specifications as the means of compliance.

An example is the mutual recognition agreement for marine equipment, administered by the U.S. Coast Guard, between the United States and the European Union. This agreement allows manufacturers to avoid duplicative testing and evaluation processes for a variety of lifesaving equipment, fire protection equipment, navigation equipment, and materials for which there are mutually acceptable international standards in place by obtaining both U.S. Coast Guard and European “wheelmark” approvals in a single step.

Another recent initiative aims at reducing burdens and expanding markets for U.S. lifejacket manufacturers while promoting innovation by working together with industry in relevant ISO working groups to develop suitable internationally harmonized, performance-based recreational lifejacket standards.

In summary, the Coast Guard is committed to developing the standards needed to improve safety, protect the environment, and reduce the cost of government regulations. Adopting standards by reference in the Code of Federal Regulations (CFR) keeps the regulations on the leading edge of technological advancement and incorporates flexibility into the CFR, which facilitates both compliance and maintenance.

Adopted standards also help promote competitiveness by ensuring that products are produced to a certain minimum quality and will perform to expectations. In addition, promoting the development of standards leverages Coast Guard resources and increases the knowledge base of Coast Guard personnel through active participation and cooperative exchanges of information with industry leaders. This includes forming committees to develop standards where none exist and providing the leadership for effective participation by all interests to develop and set necessary standards.

About the author:
Mr. Hime recently retired as the chief of the U.S. Coast Guard Office of Standards Evaluation and Development and was responsible for managing the development of Coast Guard regulations. Over his 32-year career with the Coast Guard, Mr. Hime promoted the development and adoption of industry consensus standards. He is currently the chairman of the ASTM F25 Committee on Ships and Marine Technology and secretary of the U.S. Technical Advisory Group to the ISO TC8 Committee on Ships and Marine Technology.
With millions of barrels of oil stored, transported, and consumed every day across the U.S., we face the constant risk of oil spills that can foul our waters, devastate wildlife, and hurt our economy. A cornerstone of the U.S. Coast Guard’s efforts to respond to that threat is the work of the National Pollution Funds Center (NPFC). Since 1991 the NPFC has supported the Coast Guard’s missions of maritime safety, maritime mobility, and protection of natural resources by ensuring that funds are available for federal and state oil spill first responders and managing the liability and compensation financial responsibility regime in Title I of the Oil Pollution Act of 1990 (OPA). In this article, we focus on how rulemaking helps accomplish NPFC’s missions and on the important contributions interagency and public commenters have made to the successful implementation of OPA Title I.

The NPFC—Born From Disaster
On March 24, 1989, at 12:28 a.m., the Coast Guard Marine Safety Office in Valdez, Alaska, received an emergency message that the tanker Exxon Valdez was hard aground on Bligh Reef and spilling oil. Within six hours the vessel had discharged approximately 11 million gallons of crude oil into Prince William Sound.

The oil covered more than 1,300 miles of pristine shoreline, killed an estimated 260,000 animals and billions of salmon and herring eggs, and severely damaged the local communities and the fishing and tourism industries. In addition, the massive federal cleanup effort was hampered by a lack of resources. By the end of the first week, most of the federal money available for oil pollution response was gone. The federal response costs alone eventually grew to $120 million and, ac-
According to Exxon, total costs reached $3 billion. Exxon was able to reimburse the federal costs on a weekly basis to keep the federal emergency response operational. It was clear, however, that the patchwork of federal oil spill laws needed to be modernized.

On August 18, 1990, OPA was signed into law to address the major shortcomings in prior law. The most visible concerns addressed by OPA were the need for vessel construction, manning, licensing, and operating standards. Two other central weaknesses of prior law were, however, also addressed by OPA—in Title I:

- First, Title I responded to the lack of adequate federal resources to respond to oil spills, providing access to the Oil Spill Liability Trust Fund.
- As important, OPA Title I established a new federal liability and compensation financial responsibility regime. Title I strengthened the strict “joint and several” liability scheme embodied in prior law, limiting defenses and ensuring that responsible parties are held accountable for specified damages resulting from oil spill incidents, and authorized use of the Oil Spill Liability Trust Fund to pay claims for removal costs and damages when responsible parties or their guarantors do not pay.

OPA implementation was one of the most complex regulatory challenges ever undertaken by the Coast Guard. In February 1991, the Commandant established the NPFC as an independent headquarters unit to administer the Oil Spill Liability Trust Fund (OSLTF) and carry out critical OPA Title I missions (see OSLTF pie chart). As we discuss below, few of NPFC’s missions could be implemented without regulations.

Mission #1: Financial Responsibility

To strengthen the “polluter pays” principle embodied in OPA, 33 U.S.C. 2716 provides that, before a vessel of 300 or more gross tons can operate in U.S. jurisdictional waters or a vessel of any size can use the U.S. exclusive economic zone to transship or lighter oil destined for the United States, the responsible party must establish and maintain evidence of financial responsibility sufficient to meet the maximum potential liability under OPA. NPFC’s first mission, therefore, is to protect the environment up-front by certifying whether vessel operators and deepwater ports have the financial ability to pay for removal costs and damages, up to the applicable limits of liability established under OPA, should an oil spill occur.

NPFC published the first regulations to implement the vessel financial responsibility requirements in 1994 and 1996 at 33 CFR part 138. Critical to maritime commerce, operators may demonstrate financial responsibility under the rules with self-insurance or with third-party guarantees provided by commercial insurance companies, special purpose companies, and surety bond companies.

NPFC’s Vessel Certification Division issues certificates of financial responsibility (COFRs), each generally valid for three years, confirming that acceptable financial responsibility has been demonstrated. Since OPA was enacted, NPFC has issued some 68,200 vessel COFRs, and there are now more than 22,600 active vessel certificates of financial responsibility.

The COFR program is one of the Coast Guard’s most successful regulatory efforts. The COFR status of vessels subject to 33 U.S.C. 2716 are checked by field units. Operators failing to comply with this requirement are subject to vessel detainment, denial of entry into a U.S. port, vessel seizure or forfeiture, denial of clearance to depart, or civil penalties. Because of enforcement and commercial risks, COFR program compliance is high. That compliance has improved the ability of responsible parties to immediately respond to spills and the success of NPFC’s Oil Spill Liability Trust Fund (OSLTF) cost-recovery efforts.

In 2008, the NPFC implemented a number of regulatory changes to the COFR program. First, following the 2004 Athos I spill, we amended the regulations to conform the amounts of financial responsibility that must be demonstrated under OPA to new, higher limits of liability for vessels established by the Delaware River Protection Act of 2006 amendments to OPA. (See table Oil Pollution Limits of Liability Over Time.) The 2008 rulemaking also modernized the COFR rule to automatically update the amounts of required financial responsibility in the future whenever the limits of...
NPFC MISSIONS AND REGULATIONS

liability are amended, to increase the COFR application and certification fees for inflation, and to enable the Coast Guard to verify electronically whether the vessel has current certificate of financial responsibility.

Mission #2: Emergency Response Funding
When oil spills occur in U.S. waters or there is a substantial threat of such a spill, the responsible party is expected to respond promptly. NPFC’s case management division also maintains a 24-hour-a-day system, with support from NPFC’s financial management and resources management divisions, to ensure immediate access to the Oil Spill Liability Trust Fund by Coast Guard and EPA federal on-scene coordinators (FOSCs). This funding ensures that FOSCs can conduct oil removal operations when the responsible party fails to respond or cannot be identified.

In addition, OPA authorizes use of the OSLTF to pay state governments up to $250,000 per incident for immediate state oil spill removal operations that are consistent with the National Contingency Plan. NPFC’s interim state access rule at 33 CFR part 133 ensures that this funding is available to state governments for immediate oil spill response. Since OPA was enacted, the OSLTF has paid more than $790 million for federal and state responses to over 10,000 oil pollution incidents.

Mission #3: Compensating Oil Removal Costs and Damages
When an oil spill interrupts maritime transportation, damages beaches and private property, or closes fisheries, OPA requires the United States to designate the source of the spill and notify the responsible party, and the responsible party (or under certain circumstances the United States) must advertise for claims. In addition, OPA allows those affected by oil spills to present claims for removal costs and six categories of damages specified in OPA. The claims must generally be presented first to the responsible party, or guarantor. If a responsible party cannot be identified or the responsible party did not pay the claim, the claim may be presented to the Oil Spill Liability Trust Fund, as a remedy of last resort.

NPFC’s interim claims rule at 33 CFR part 136 implements these authorities. Since OPA was enacted, NPFC’s Claims Adjudication Division and, for loss of subsistence claims, NPFC’s Natural Resource Damage Claims Division have received 11,459 claims, ranging from several hundred to tens of millions of dollars, and authorized payments to claimants of more than $334 million.

In addition, federal, state, Indian tribe, and foreign trustees may present claims under NPFC’s interim claims rule to fund long-term NRD assessment and restoration. Since OPA was enacted, NPFC has authorized payment of more than $42 million from the OSLTF for trustees to carry out NRD assessment and restoration in response to oil pollution incidents.

Mission #5: Cost Recovery
A basic tenet of OPA is that those responsible for oil pollution incidents are liable for the resulting costs and damages. NPFC’s fifth primary mission is, therefore, to ensure that the polluter is held accountable by performing the collection functions necessary to recover the costs incurred by the Oil Spill Liability Trust Fund. Since OPA was enacted, over $235 million have been returned to the OSLTF as a result of the NPFC case management and legal divisions’ cost recovery efforts.

Although responsible parties are strictly liable for spills as a matter of statute, some aspects of responsible party liability are subject to regulation. For example, 33 CFR part 137 sets forth the current OPA limits of liability for vessels and deepwater ports and the method for increasing those limits by regulation for inflation. In addition, 33 CFR part 137 sets forth due diligence “all appropriate inquiries” requirements that must be followed to establish OPA’s “innocent landowner” defense to liability.

Mission #4: Funding Natural Resource Damage Assessment and Restoration
OPA also authorizes funding to remedy natural resource damages. In addition to the emergency money made available to FOSCs and states for removal actions, OPA authorizes federal trustees to request access to the Oil Spill Liability Trust Fund for emergency funds to initiate natural resource damage (NRD) assessments. This funding is used to collect short-lived data. Since 1990, NPFC’s Natural Resource Damage Claims Division has authorized more than $5 million in initiate funding in response to oil pollution incidents.
NPFC Rulemaking—The Role of Coordination and Public Comment

With regulatory development, as with the legislative process, rulemaking teams may be well versed in the law and our own world of work. We, however, depend on the comments we receive from other offices and the public for information we need to make decisions and to complete our understanding of how our regulations impact other programs, those we regulate, and the public at large. The public and other agencies also benefit by becoming familiar with the issues and having an opportunity to participate in shaping the final agency action.

As illustrated in the Rulemaking—Lessons Learned sidebar at right, several NPFC rulemakings provide useful examples of the important role this participatory process plays in successful rulemaking. Internal Coast Guard, Department of Homeland Security, and interagency concerns have been brought to NPFC’s attention during program implementation and through coordination on rulemaking projects. The public notice and comment process has also allowed the regulated community, environmentalists, and other interested members of the public to inform our decision making. These exchanges have helped clarify statutory intent, avoid inconsistencies that could have undermined our regulatory efforts, and expedite the rulemaking process.

Public and Cross-Program Input in Future NPFC Rulemaking

Still to come are planned NPFC rulemaking efforts to update and finalize the interim claims rule and interim state access rule, as well as future required inflation adjustments to the OPA limits of liability, planned for 2012. Future inflation adjustments to the limits of liability will be promulgated in coordination with the Environmental Protection Agency (EPA), Department of Transportation (DOT), and Department of the Interior (DOI) to ensure consistency across source categories.

In addition, OPA calls for coordination with EPA on the state access rulemaking. The interagency and public comments we received during development of the interim claims and state access rules, and the 2009 adjustments to the limits of liability discussed at right in the Rulemaking—Lessons Learned sidebar, as well as our implementing experience, and the additional comments we receive as we move forward with these and other rulemakings will inform our decision making and help us achieve a successful outcome.

The All Appropriate Inquiries (AAI) Expedited Rulemaking Process. In 2004 Congress amended OPA to establish a new innocent landowner defense to liability. The OPA amendments were modeled on similar provisions in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and required development of an OPA “all appropriate inquiries” rule in consultation with the EPA, which was finalizing a negotiated rulemaking to implement the CERCLA provisions.

As soon as EPA published its rule, the NPFC moved forward with coordination of the OPA AAI rulemaking. Due in large part to this interagency coordination, the Coast Guard was able to expedite its own rulemaking; benefit from EPA’s regulatory process, data collection, and regulatory analysis methodology; and publish a final OPA AAI rule that is substantively consistent with the CERCLA AAI standards while recognizing the differences in CERCLA and OPA’s statutory schemes. Dovetailing with the EPA rule also helped ensure that the OPA AAI regulatory requirements did not add unnecessary burden on the regulated community and facilitated the rulemaking process.

The NPFC was, for example, able to draw on EPA’s substantive expertise to quickly identify and resolve technical issues. In addition, the EPA rule reflected the consensus view of a negotiated rulemaking committee that included members of the public from a broad range of perspectives. NPFC’s rulemaking consequently benefited from the public support engendered during the EPA rulemaking process, eliciting no adverse public comments.

Reaching Inter-agency Agreement on Consumer Price Index Adjustments to the OPA Limits of Liability. As mentioned earlier, with certain exceptions, OPA limits responsible party (RP) liability. This functions somewhat like an insurance policy deductible, in that an RP who incurs costs in excess of the applicable limit generally can seek reimbursement of those costs from the OSLTF. To prevent the real value of the OPA limits of liability from depreciating over time as a result of inflation and thereby shift the financial risks of oil spills to the OSLTF, OPA requires rulemaking to periodically increase OPA’s limits of liability to reflect significant increases in the Consumer Price Index (CPI).
Rulemaking—Lessons Learned

Although this regulatory mandate seems straightforward, OPA divides the limits of liability into four major source categories: vessels, onshore facilities, deepwater ports, and other offshore facilities. In addition, regulatory responsibility for implementing the inflation adjustments has been delegated under E.O. 12777, to several federal agencies. The NPFC has delegated authority to adjust the limits of liability for vessels, deepwater ports, and marine transportation-related onshore facilities. The EPA, DOT, and DOI have delegated authority to adjust the limits of liability for other categories of onshore and offshore facilities. To complicate matters further, when Congress amended OPA in 2006 in response to the 2004 Athos I incident, it required the first round of regulatory inflation adjustments to the limits of liability by 2009.

Recognizing that the CPI adjustment methodology and scope of NPFC’s rulemaking would impact how EPA, DOT, and DOI implemented their delegated responsibilities, NPFC initiated informal consultations with the other stakeholder agencies and the Department of Justice. The consultations led to staff agreement on two overarching issues. First, the agency representatives agreed that adjustments to the facility limits of liability would need to be coordinated to avoid regulatory distinctions based on how the sub-categories of facilities were delegated in E.O. 12777 or defined in each agency’s regulations. They also agreed that the coordination on the facility limits of liability should not delay the Coast Guard’s rulemaking to adjust the limits of liability for vessels and deepwater ports by the statutory deadline.

To achieve both objectives, the agency representatives decided to wait until the next round of CPI adjustments, planned for 2012, for the first set of inflation adjustments to the onshore and offshore facility limits of liability. In addition, they agreed on the Coast Guard’s proposed methodology for adjusting the limits of liability.

The agreements reached during the informal interagency coordination facilitated expedited clearance of the rulemaking. The adjustment methodology and coordinated approach also received public support during the comment period on the Coast Guard’s notice of proposed rulemaking and permitted the Coast Guard to publish the inflation-adjusted limits of liability for vessels and deepwater ports before the statutory deadline.\(^\text{14}\)

The COFR Rulemaking—The Importance of Understanding How Industry Works.

Over the course of maritime history vessel owners and operators formed mutual associations, known as protection and indemnity (P&I) clubs, to protect themselves against the financial risks associated with commercial shipping. P&I clubs historically also provided the bulk of financial responsibility for the ocean-going fleet that was required under U.S. law prior to OPA.

The Oil Pollution Act of 1990, however, introduced several significant changes in the U.S. liability regime that the P&I clubs found objectionable. Although the P&I clubs did not object to the increased limits of liability under OPA 33 U.S.C. 2704, they were concerned about provisions that subjected guarantors to direct action, barred insurance policy defenses, and reserved liability under state law. The P&I clubs were therefore reluctant to provide OPA financial responsibility cover. As a result, the nation was faced with the possibility of major disruptions to maritime commerce due to the risk that large segments of the shipping industry would be left without an affordable means of establishing OPA financial responsibility.

To resolve this problem, the NPFC opened the COFR rulemaking to public comment, specifically soliciting information that would help us better understand the commercial environment. The resulting public response made clear that industry had developed innovative market solutions that did not compromise the statutory and regulatory requirements. Most significant among them was the formation of new, independent OPA financial responsibility guarantors known as the “Bermuda Companies” to fill the void left by the P&I clubs.\(^\text{15}\) In addition, the American surety bond market agreed to issue low-cost guaranties.

The Coast Guard concluded in its 1996 final COFR rule that recognizing these and other alternative methods for providing financial responsibility would avoid the threatened commercial disruptions and ensure that vessels had the financial ability to respond to oil spills.\(^\text{16}\) Compliance with the COFR rule has since been excellent.

Public Comment Helped NPFC Apply the Correct Limits of Liability for Tank Vessels.

When the OPA limits of liability for vessels were increased in 2006 by the Delaware River Protection Act, Congress established two categories of tank vessel: “single-hull” tank vessels, including vessels with double sides only or a double bottom only, and tank vessels “other than” a single-hull tank vessel. Our 2008 final COFR rule, however, characterized the “other” category of tank vessel hulls as “double-hull.”\(^\text{17}\)

A public comment on the subsequent CPI notice of proposed rulemaking, however, pointed out that the hull description in the 2008 final COFR rule had inadvertently subjected tank vessels that do not carry oil cargo to the higher single-hull tank vessel limits of liability. After considering the issue, including cross-programmatic consultations within the Coast Guard, the NPFC determined that a regulatory amendment was needed as soon as possible.

Because the hull issue had not been discussed in the CPI Notice of Proposed Rulemaking, however, we determined it would not be appropriate to simply amend the relevant regulatory provisions without providing an additional opportunity for public comment. We therefore published an interim CPI rule that adjusted the limits of liability for inflation effective July 31, 2009, but also afforded the public 60 days to comment on new proposed language to clarify the hull categories. All the public comments received on the clarification were positive and we were able to conclude the rulemaking within a matter of months.\(^\text{18}\)
### OIL POLLUTION LIMITS OF LIABILITY OVER TIME

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<td><strong>NON-TANK VESSELS</strong></td>
<td>$150 per GT or $250,000</td>
<td>$600 per GT or $500,000</td>
<td>$950 per GT or $800,000</td>
<td>$1,000 per GT or $854,400</td>
</tr>
<tr>
<td><strong>DEEPWATER PORTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generally</td>
<td>$50,000,000</td>
<td>$350,000,000</td>
<td>$350,000,000</td>
<td>$373,800,000</td>
</tr>
<tr>
<td>Louisiana Offshore Oil Port</td>
<td>$62,000,000</td>
<td>$62,000,000</td>
<td>$87,606,000</td>
<td></td>
</tr>
<tr>
<td><strong>ONSHORE FACILITIES</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
<td>$50,000,000</td>
<td>$350,000,000</td>
<td>$350,000,000</td>
<td>$350,000,000</td>
</tr>
</tbody>
</table>

<sup>*</sup> “Single-hull” includes single-hull tank vessels fitted with double sides only or a double bottom only. 33 U.S.C. 2704(a)(1)(A); 33 CFR part 138, subpart B. “Other-hull” refers to tank vessels that do not carry—and are not constructed or adapted to carry—oil in bulk as cargo or cargo residue, including any oil cargo tank vessel meeting the “double hull” technical standards under 33 CFR part 157.

<sup>**</sup> The onshore facility limits of liability will be adjusted for inflation in the 2012 CPI rulemaking.

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**About the authors.**

Ms. Hopp is legal and regulatory counsel for the NPFC. She was previously in private practice and at EPA, where she earned high honors for work on legislative, regulatory, enforcement, and treaty matters. She has a B.A. from the University of Maryland, a J.D. from the Columbus School of Law, and is admitted to the D.C. and Maryland bars.

Mr. White is the regulatory project manager for the NPFC. He has more than 10 years of experience working with federal and international maritime regulations. He has a B.S. in biology from Dickinson College and an M.S. in agricultural and resource economics from West Virginia University.

**Acknowledgments:**

The authors wish to thank Guardians AI Thurting, Jack Crawford, and Miguel Bella, who ensured federal costs were funded during the Exxon Valdez response and continue to ensure funds are readily available for national pollution emergencies, and others at NPFC for their contributions to this article.

**Endnotes:**


2. On the day of the spill, $6.7 million were available in the Federal Water Pollution Control Act (FWPCA) Section 311(k) Fund (33 U.S.C. 1321(k)). By the end of the 1st week $2 million remained. [http://www.uscg.mil/History/webshipwrecks/ExxonValdezNRT1989Report.pdf](http://www.uscg.mil/History/webshipwrecks/ExxonValdezNRT1989Report.pdf); Author interviews; GAO; Coast Guard; Federal Costs Resulting From the Exxon Valdez Oil Spill (January 1990) (GAO / RCD-90-915).

3. Prior to OPA, Federal oil spill liability and compensation financial responsibility authorities existed under Section 311 of the FWPCA (33 U.S.C. 1321), Title III of the Outer Continental Shelf Lands Act Amendments of 1978 (43 U.S.C. 1814) (OSCLAA), the Trans-Alaska Pipeline Authorization Act (43 U.S.C. 1653) (TAPAA), and the Deepwater Port Act of 1974 (33 U.S.C. 1517) (DPA). Congress was prompted to move forward with legislation to consolidate these authorities by the Exxon Valdez incident and a rash of other major oil spills that followed including: the 567,000-gallon Exxon Bayway, New York, pipeline spill in January 1990; the AMERICAN TRADER 400,000-gallon tanker spill off the coast of California; the June 1990, 5,095,000-gallon MEGA BORG tank explosion in the Gulf of Mexico; and the July 1990, 164,000-gallon Apex Barge spill in Texas. See Randle, Russell V., Oil Pollution Deskbook, Environmental Law Institute 1991 (hereafter OPA Deskbook); for the legislative history and further detail on the antecedents and purposes of OPA.

4. Id. OPA is Pub. L. 101–380 (August 18, 1990), as amended. OPA Title I is classified principally to 33 U.S.C. 2701–2720.


7. NPFC also manages the Coast Guard’s use of two other sources of pollution response funding: (a) the Superfund for readiness and response to hazardous materials spills in the coastal area under CERCLA, 42 U.S.C. 9601 et seq. (1980), and (b) funding for pollution responses during disasters such as 9-11, Hurricanes Katrina and Rita under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. 107–707 (1988), as amended.

8. 40 CFR part 300.

9. The Coast Guard and Maritime Transportation Act of 2004 (Pub. L. 108–293, Sec. 705(c), adding new 33 CFR 2705(d)(4)).

10. 42 U.S.C. 9601, et seq. The CERCLA provisions concern liability for releases of hazardous substances other than OPA oil.

11. 73 FR 2146 (January 14, 2008).

12. The EPA negotiated rulemaking committee included representatives from environmental groups; the environmental justice community; federal, state, tribal, and local governments; real estate developers, bankers and lenders; and environmental professionals.

13. OPA 33 U.S.C. 2708 authorizes responsible parties to present claims to the OSLIF if they are able to establish a defense to liability under 33 U.S.C. 2703 (i.e., incidents caused solely by acts of God, acts of war, and actions by third parties not in a contractual relationship with the responsible party), or they are entitled to limit their liability. The limits of liability - set forth at 33 CFR part 138, subpart B - do not apply in instances of gross negligence or willful misconduct.

14. 73 FR 53691 (September 17, 2008), adding the limits of liability to 33 CFR part 138, subpart B.

15. 75 FR 7550 (January 6, 2010) (final CPI rule).
After the Exxon Valdez grounding and subsequent oil spill, Congress and the U.S. Coast Guard recognized the need for enhanced federal regulations to avoid worst-case scenarios involving oil tankers. In response to that disaster, the Oil Pollution Act of 1990 (OPA 90) was enacted into law.

From that law, the Coast Guard’s efforts to issue federal regulations to adequately cover the need for salvage and marine firefighting for oil tankers became a two-step process. First, an initial regulation was issued to create response requirements. Second, there was a need to expand those requirements to define response services in more detail. The Salvage and Marine Firefighting Requirements; Vessel Response Plans for Oil, Notice of Proposed Rulemaking (NPRM) was issued to address the latter.

In the years after OPA 90 and before the Coast Guard published a more detailed final rule in 2008, President Clinton signed executive order (E.O.) 13175, “Consultation and Coordination With Indian Tribal Governments,” which requires agencies to consider compliance costs imposed on tribal governments by regulations.

Executive order 13175 created a unique and challenging situation for the Coast Guard’s Office of Standards Evaluation and Development in that we were presented with the need to establish an outreach program with tribal governments affected by the regulation, but we lacked a formal precedent to follow for executing those responsibilities.

Overview
To comply with E.O. 13175, an agency must either ensure that funds to cover the direct financial cost of compliance with its proposed regulation is provided or comply with the established consultation requirements in E.O. 13175. Additionally, when an agency regulation will have tribal implications and/or preempt tribal law, the agency must comply with the consultation requirements prior to publication of the regulation.

Agencies are required to designate an official who has the principal responsibility for implementing E.O. 13175 and submit a description of this consultation process. Agencies are to give expeditious consideration to tribal requests for waivers of discretionary statutory and regulatory requirements, and are encouraged to grant waivers when consistent with the objectives of the program.

Coast Guard Example: The Salvage and Marine Firefighting Rulemaking
OPA 90 requirements for salvage and marine firefighting resources in vessel response plans were issued February 5, 1993, and required that the plan holder identify resources capable of being deployed to the port nearest the area in which the vessel operates within 24 hours of notification. The Coast Guard did not originally develop specific requirements because salvage and marine firefighting response resource requirements were considered unique to each vessel. The Coast Guard’s intent was to rely on the plan holders to prudently identify contractor resources to meet their needs. The Coast Guard
Guard expected that the significant benefits of a quick and effective salvage and marine firefighting response would be sufficient incentive for industry to develop salvage and marine firefighting capabilities similar to the development of oil spill removal organizations.

Early in 1997, it became apparent that the expected salvage and marine firefighting capability development was not occurring. There was disagreement among plan holders, salvage and marine firefighting contractors, maritime associations, public agencies, and other stakeholders as to what constituted adequate salvage and marine firefighting resources. There was also concern over whether these resources could respond to the port nearest the vessel’s operating area within 24 hours, even though the maritime industry had several years to develop these resources.

On May 10, 2002, the Coast Guard published a notice of proposed rulemaking entitled “Salvage and Marine Firefighting Requirements; Vessel Response Plans for Oil; Proposed Rule.” In this proposed rulemaking, we solicited public comments from all parties, but none were received from any of the tribal councils we identified earlier in 2001.

Because of this, we requested a “consultation and coordination” process with the Makah Tribal Council (MTC) via a formal letter. The MTC responded with two letters. The first, dated September 27, 2002, requested that we enter into a “consultation and coordination” process with them, which we did. The second was a February 15, 2006 letter in response to the draft programmatic environmental assessment, published on January 3, 2006, to support the proposed rulemaking. This letter formally recognized the NPRM and the draft programmatic environmental impact statement and requested that the process under E.O. 13175 be entered by both parties as soon as possible.

The MTC believed the Coast Guard needed to improve its understanding and application of its trust responsibilities to the Makah Tribe by consulting with the MTC on a government-to-government basis when addressing Coast Guard actions that might impact the council’s treaty rights. Both letters expressed concern whether the salvage and marine firefighting rulemaking adequately protected the nationally unique Makah usual and accustomed marine area from environmental damage as a result of an oil spill.

It was imperative for the Coast Guard to not just evaluate the cost and the benefit to the maritime industry for the proposed rulemaking, but also the impact and benefits (as discussed above) to the Makah tribe and the federally designated marine habitats such as Olympic National Park, Olympic Coast National Marine Sanctuary, Flattery Rocks, and Quillayute Needles and Copalis National Wildlife Refuges.

Once the “consultation and coordination” process was agreed upon by both parties, the Coast Guard sent the proposed rulemaking’s program office representative to Neah Bay, Wash., to meet with the MTC, tribal elders, and other interested tribal associates to discuss the proposed rule.

In addition, the Coast Guard recognized early in this process that it would need to be handled in a sensitive manner due to the unfamiliarity of the required process, but also that it needed to take the necessary time and effort to understand all of the Makah tribal concerns not only in the legal sense, but also in a cultural and socio-economic setting. This interaction with the MTC on its own land, which includes historical hunting and fishing areas and its treaty-reserved marine and cultural resources, helped immensely in putting the MTC’s concerns into the proper context.

On June 1, 2006, the office representative met with the MTC at its headquarters for two distinct meetings. During the morning session, there were attendees not covered by the ex parte communications afforded to the tribe and its legal representatives. As a result, an afternoon session was held to specifically discuss the rulemaking, any changes being proposed from the issuance of the NPRM, and any specific concerns the Makah tribe might have.

LCDR Kohberger; CDR Chris Woodley, CDR Dan Kane, and Mr. Scott Knutson of Coast Guard District 13; Lcdr Josh Reynolds, Sector Seattle, Preventions; and Mr. Andrew Connor, Makah liaison officer for the District 13 staff, represented the Coast Guard.

Attending for the MTC were Mr. Ben Johnson, tribal chairman; Mr. Dave Soanes, tribal vice chairman; Mr. Chad Bowechop, tribal liaison to the Coast Guard; Ms. Janine Bowechop, tribal cultural trust; Mr. Lloyd Lee, tribal police; Mr. Steve Joner, Mr. Russell Svec, Mr. Jim Woods, and Mr. Brandon Bryant, Makah fisheries; and Ms. Rebekah Menette, Makah tribal historical preservation.

Also attending were Mr. Fred Felleman, Northwest director, Ocean Advocates; Mr. Chris Jones, NOAA liaison to the Makahs; Mr. Bob Buckingham, Port of Neah Bay director; and Mr. Bill Parkin, harbormaster.
As evidenced by the various attendees, this meeting helped to smooth the consultation and coordination process among the regulatory offices of the Coast Guard and the MTC and served as a venue for the MTC to create beneficial relationships with local Coast Guard district offices and other maritime interest groups. A follow-up meeting was held at Coast Guard headquar-
ters in Washington, D.C., to ensure the rights of the Makah tribe were being met under E.O. 13175.

One key issue that came out of the meetings was the MTC’s strong interest in establishing a formal memoran-
dum of understanding/memorandum of agreement with the Coast Guard to define the consultation and co-
ordination process. It was suggested that the Interna-

**REQUIREMENTS AND APPLICABILITY**

1. **General Provisions.** The intent of E.O. 13175 is to es-
tablish regular and meaningful consultation and collabora-
tion with tribal officials. Executive Order 13175 complements the consultation and waiver provisions in sec-
tions 6 and 7 of E.O. 13132 (Federalism). Executive Order 13175 supplements, but does not supersede, E.O. 12866 (Regulatory Planning and Review), E.O. 12988 (Civil Justice Reform), and Office of Management and Budget (OMB) Cir-

2. **Key Definitions.**

   **Policies that have tribal implications:** regulations and policy statements or actions that “have substantial direct effects” on one or more Indian tribes on the relationship between the federal government and Indian tribes.

   **Indian tribe:** Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Inter-
   rior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994.

   **Tribal officials:** elected or duly appointed officials of Indian tribal governments or authorized intertribal organizations.

3. **Fundamental Principles / Policymaking Criteria.**

   Since the formation of the union, the United States has rec-
  ognized Indian tribes as domestic dependent nations under its protection. As domestic dependent nations, Indian tribes exercise inherent sovereign powers over their members and territory. Executive Order 13175 promotes respect for Indian tribal self-government and, where possible, encourages agencies to defer to Indian tribes in establishing regulatory standards. In determining whether to establish federal reg-
   ulatory standards, agencies are to consult with tribal officials as to the need for such regulations and any alternatives that
   would limit the scope of federal regulations or otherwise preserve the prerogatives and authority of Indian tribes.

4. **Consultation.** The agency must have an accountable process to ensure meaningful and timely input by tribal officials in the de-

5. **Flexibility for Indian Tribal Waivers.** The agency must review the processes under which Indian tribes apply for waivers of statutory and regulatory requirements and take appropriate steps to streamline those processes. To the extent practicable and permitted by law, the agency must con-
sider any application for a waiver in connection with any program administered by the agency with a general view to-
ward increasing opportunities for utilizing flexible policy ap-

   **Certification to OMB.** In transmitting any draft final reg-
   ulation that has tribal implications to OMB, the agency must include certification that the requirements of E.O. 13175 were met in a meaningful and timely manner.
Consider and investigate the possibility of tribal government impact because there may be an unknown impact. For example, in an earlier potential rulemaking involving passenger vessels, a question was raised as to whether any Indian tribes owned or operated such vessels. Research indicated there was one such vessel operated by an Indian tribe. As a result, prior consultation was initiated.

Talk to the district legal office of the potentially impacted Coast Guard district to determine whether any Indian tribe in the region might be impacted by the proposed rulemaking. The district is likely to have experience dealing with tribes in an area of rule impact.

It is always better to consult with tribal officials if one is not sure of the potential impact.

It is better to reflect in the NPRM any actions and research undertaken even if, after investigation, it is determined that there is no impact on tribal governments.

If an Indian tribal official provides comments to an NPRM (and/or other advisory), absolutely engage them. Reflect the engagement in the supplemental/final rule.

Addressing collateral issues of interest to the MTC was perhaps the most valuable product of the coordination process, especially after the Coast Guard later determined that the proposed rule did not have tribal implications under E.O. 13175 because it did not have a substantial direct effect on one or more Indian tribes, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes.

Notwithstanding this determination, the MTC and the Coast Guard established lines of communication where other issues affecting the Makah tribe could be addressed to the appropriate Coast Guard and Department of Homeland Security (DHS) offices in the future by petitions for rulemakings, joint workgroups, port partnerships, area planning committees, or other venues to effect change.

After Actions

It is important to note that the efforts at consultation and coordination should not be, and were not limited to, only what is required by E.O. 13175 during the drafting and issuing of a Coast Guard regulation. The Office of Standards and Regulations recognized that there was no formal process in place at the agency level for adhering to E.O. 13175. Therefore, at every step of the Salvage and Marine Firefighting regulation’s review process, we provided detailed information to our DHS regulatory counterparts regarding our outreach to the MTC and the ensuing consultation and coordination process used to meet E.O. 13175.

DHS Secretary Janet Napolitano announced to the National Congress of American Indians on March 3, 2009, that the department would institute its first policy to engage the direct and interactive involvement of Indian tribes in developing regulatory policies, recommending grant procedures for tribes, and advising on key issues.

She said, “Tribal interests are a necessary and integral part of this department’s decision making process. Starting at the outset, even the policy itself will be developed in a consultative way. We will move swiftly to get a good policy on the books, and begin with open and continuous communication to achieve results.”

About the authors:

LCDR Reed H. Kohberger currently serves in the U.S. Coast Guard Office of Standards Evaluations and Development as a regulatory development manager. He is also the project manager for the Vessel Response Plans—Salvage and Marine Firefighting regulation. LCDR Kohberger has been awarded an associate’s degree and two baccalaureate degrees while serving on active duty.

Kenneth R. Bryant received his Juris Doctorate from the University of Tennessee College of Law in 1976. He was a U.S. Navy Judge Advocate General for 28 years, retiring as a captain. In April 2009, he joined the Coast Guard’s Office of Regulations and Administrative Law, serving as a civilian attorney advisor until October 2009, when he became an Administrative Law Judge with the Social Security Administration.

Endnotes:

1 E.O. 13175, Section 1(c). “‘Agency’ means any authority of the United States that is an ‘agency’ under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined by 44 U.S.C. 3502(5).” Unless specifically indicated otherwise, wording in this article in quotes is taken from E.O. 13175.
Makah Tribal Council’s Office of Marine Affairs

by Mr. Chad Bowechop
Manager, Makah Office of Marine Affairs

The Makah tribe’s traditional marine territory lies at the junction of the Strait of Juan de Fuca and the Pacific Ocean in Washington state. Its people are indigenous to this region and have a tremendously rich cultural heritage and connection to the ocean and the marine environment.

The tribe signed the 1855 Treaty of Neah Bay with representatives of the federal government to reserve the right to harvest marine resources from the ocean. The right to access the wealth of resources connected to the marine environment was reserved for its people and included the tribe ceding more than 300,000 acres of timbered property to strengthen its claims to a prescribed ocean area.

The Makah is the only tribe in the United States that reserved the right to hunt whales through treaty agreement. As testimony to its ocean-going heritage, the tribe has secured a “usual and accustomed” treaty fishing area in the Pacific Ocean that extends 50 miles offshore. The Makah Tribal Council (MTC) currently manages one of the largest tribal combined fisheries in the country that is a principal source of seasonal employment for the tribe.

The Makah tribe was a party to the 1974 U.S. vs. Washington Boldt decision that reaffirmed the tribe’s right to access its usual and accustomed fishing and hunting areas. The tribe was also a signatory to the 1989 Centennial Accord with the state of Washington that reaffirmed its co-manager status relative to natural resources.

Today the Strait of Juan de Fuca is a primary shipping lane for commercial vessels bound to port facilities in Washington state and British Columbia. Because of its risk exposure to oil spills, the Makah Tribal Council has been involved in oil spill policy and response program capacity development since the early 1970s.

The Office of Marine Affairs

The Makah Tribal Council created the Office of Marine Affairs in 2008 with funding from the Environmental Protection Agency (EPA) in recognition of its history with oil spills and the volume of vessel traffic through the treaty area combined with the sensitivity of the marine environment and the desire to protect its cultural, subsistence, and economic connection to the ocean and the marine environment. Creating the Office of Marine Affairs also paved the way for the MTC’s appointment to the Region 10 Response Team/Northwest Area Committee as a voting member. The MTC views this as essential to the success of the Makah Office of Marine Affairs in defending treaty rights and as a significant Coast Guard/EPA commitment to work toward advancing shared interests.

The MTC bases its oil pollution initiative on the special trust responsibility relationship created between the federal government and the Makah Indian Tribe as set forth
The Office of Marine Affairs has identified the following overall goals as it defines and charts a course toward enhancing its working partnership with the 13th Coast Guard District.

**Goal 1.** Identify opportunities for funding to assist the Makah Office of Marine Affairs in training the Makah environmental response team, tribal employees, and tribal fishermen in oil spill preparedness and response to achieve a basic ordering agreement.

**Goal 2.** Assist the Makah Office of Marine Affairs to ensure that the equipment stationed in Neah Bay is appropriate for the open ocean operating environment and conduct regular drills and exercises utilizing equipment in a coordinated fashion.

**Goal 3.** Evaluate opportunities to enhance the infrastructure of the Port of Neah Bay to serve as a cache for response equipment, vessels, and forward command post.

**Goal 4.** Work to develop a 13th Coast Guard District government-to-government tribal consultation policy that could serve as a model for interactions with federally recognized Indian tribes.

**Goal 5.** Enhance communication procedures between the Port of Neah Bay and the Coast Guard Station Neah Bay, Port Angeles, and Seattle vessel traffic centers.

Establishing a meaningful government-to-government tribal consultation policy is an essential building block in a mutual understanding of the federal government’s trust responsibility to the MTC relative to treaty trust-protected resources. Such a mandate was declared as part of the agency directive recently announced by Department of Homeland Security (DHS) Secretary Janet Napolitano. This will enable DHS and the Coast Guard to engage the Makah Tribal Council at the appropriate policy level as a tribal resource trustee regarding resource protection and marine transportation safety issues. This will also equip the DHS to better characterize impact on tribal interests in future policy development and rulemakings.

To support development of meaningful government-to-government partnerships with the federal and state governments, the Makah Tribal Council participated in a 2007 oil pollution summit with Washington state Governor Christine Gregoire and U.S. Coast Guard District 13 Rear Admiral Richard Houck. The memorandum of agreement (MOA) on oil pollution prevention and response between the commander of the 13th Coast Guard District and the state of Washington, along with the shared strategic work plan, supports identification of the mutual areas of authorities and interests shared among the federal and state governments that strengthen the partnership to advance oil spill prevention, preparedness, and response capabilities. The oil pollution MOA will also help the MTC and other Northwest Treaty tribes to better understand how to improve interaction with federal and state governments.

The MTC conveyed its desire to formalize with the Coast Guard its intent to acquire the necessary training, equipment, and support that would enable the council to obtain a basic ordering agreement status as an “all hazards responder” and lay the foundation for a similar memorandum of agreement/letter of intent. The letter of intent can further serve as a clarifying document addressing the government-to-government relationship with the 13th Coast Guard District until a formal coordination and consultation policy with Indian tribal governments can be established through the Department of Homeland Security.

**Significant Accomplishments**

During the planning process for an ExxonMobil Washington state outer coast spill drill in May 2008, ExxonMobil, the U.S. Coast Guard, and the state of Washington Department of Ecology acknowledged the MTC’s role in the exercise as a tribal on-scene coordinator in the incident command. USCG District 13 created a position for a tribal liaison in recognition of the need to institutionalize its working relationship with someone who is not subject to the regular rotation of military service.

The 20th anniversary of the Exxon Valdez oil spill was marked by Washington state Governor Christine Gregoire signing legislation requiring the maritime industry to permanently maintain and operate the Neah Bay response tug. The MTC will work to integrate the tug
with government, industry, and tribal response assets and personnel. The MTC initially assisted in the Neah Bay response tug stationing effort by providing $400,000 from the MTC damage assessment funds from the Tenyo Maru.

The MTC is soliciting support from the Washington state congressional delegation to explore the possibility of funding a mentor/trainee program to assist in distributing the crewing costs associated with stationing the Neah Bay rescue tug. In related action, the MTC submitted a letter of request to the Army Corps of Engineers requesting the Corps to engage in a study to lay the groundwork to dredge the Neah Bay harbor to accommodate deeper draft vessels.

The MTC also proposes working with Washington State’s Puget Sound Partnership Effort to improve multi-agency/tribal regional spill response capability.

The MTC has also presented a model for developing a tribal fishing vessel response program in several forums. An initial focus will be to integrate the Neah Bay response tug with other response assets and work toward securing equipment appropriate to the operating environment.

Office of Marine Affairs staff recently met with the Sector Seattle/CG District 13 to discuss the training and accreditation requirements to achieve a basic ordering agreement (BOA) with the Coast Guard. This BOA would certify that a specific number of tribal members and employees are qualified, trained, and available as oil spill responders. It would also outline available tribal, public, and private oil spill response capabilities and equipment available to the Makah response team.

The MTC currently has contracts in place to provide spill response personnel and resources to the Marine Spill Response Corporation (MSRC) and the National Response Corporation (NRC). These contracts define services provided, equipment pre-positioning, and tribal response personnel arrangements for the Neah Bay response staging area. The MSRC currently employs three tribal members who are training to assume operational responsibility on the 73-foot oil-skimming vessel Arctic Tern and spill response vessel Loon. The NRC currently employs two tribal members to maintain the 110-foot oil-skimming vessel Cape Flattery. These tribal members received their initial training as members of the Makah response team, which has been under the supervision of the Neah Bay port director and harbor master since its inception in 1991.

Oil Spill Prevention Objectives

1. Incorporate the services of an emergency towing/rescue vessel that can be integrated into the Neah Bay staging area.
2. Determine the route forward for establishing the high-volume port line at Cape Flattery.
3. Establish an aid to navigation at the entrance to the Strait of Juan de Fuca.
5. Establish a common operational understanding with Coast Guard District 13 concerning a vessel traffic observation system data feed for the Makah marina.
6. Evaluate the recommended route for laden tank barges exiting Puget Sound, the adequacy of Manning standards, and current towing protocols.
7. Determine the need for weather restrictions for refined product tank vessels departing Puget Sound berths for U.S. West Coast ports.
1977 – Naval troopship General Meiggs spills 2.3 million gallons in Makah urbanized area (UA).
1986 – Tanker Arco Anchorage spills 200,000 gallons in Port Angeles.
1988 – Nestucca barge spills 230,000 gallons in Makah UA.
1989 – Exxon Valdez oil spill lack of caches to remote locations; funding for tribal dock development, fishing vessel response program.
1989 – Congress designates the Olympic Coast National Marine Sanctuary.
1991 – Tenyo Maru spills 600,000 gallons in Makah UA.
1991 – State legislature recognizes the need for the establishment of an emergency response system for the entrance to the Strait of Juan de Fuca.
1994 – Emergency towing system task force defines the type of tug needed for strait to be stationed in Port Angeles.
1996 – Alaskan North Slope crude oil export ban lifted.
1997 – Opening of the Makah marina.
1999 – Navy stations tug in Neah Bay.
2002 – BIA seeks to build Cordova oil spill response facility.
2003 – Makah appointed to the Puget Sound Harbor Safety Committee.
2003 – Port of Neah Bay submits port security grant request.
2004 – Port of Neah Bay, Port Angeles, and Clallam Co. submit port security grant request.
2007 – Ecology designates the Neah Bay staging area as part of C plan rule update.
2008 – MTC creates the Makah Office of Marine Affairs.
2008 – MTC appointed to the Region 10 Response Team/Northwest area committee.
2008 – Coast Guard issues salvage and firefighting rule not pre-empting state’s authority.
2008 – Navy proposes Kitsap/Quinault range expansion.
2009 – State legislature requires maritime industry to fund the tug.
2009 – Navy proposes NW range expansion.
2009 – Navy proposes DHS Neah Bay listening station.

### Oil Spill Preparedness Objectives

1. Assist Coast Guard review of federal oil spill contingency planning regulations by providing a tribal treaty resource trustee perspective. Recommend changes or solutions that would be of benefit to the Makah tribe and the commercial shipping industry, such as providing additional response capability and marine infrastructure in Neah Bay.
2. Hold regular oil spill response exercises testing the ability to utilize the diverse response assets in the strategic Port of Neah Bay.
3. Increase outer coast response capacities in conjunction with a high-volume port line move to Cape Flattery.
4. Revise availability of trained personnel and appropriate equipment.
5. For cross-boundary spills, work with first nations on both sides of the Strait of Juan de Fuca.

### Oil Spill Response Objectives

1. Establish initial incident communication protocols requiring that the Makah Tribal Council be informed of any incidents within or adjacent to the Makah Usual and Accustomed Area (U&A) that have the potential to impact Makah resources, and consult with MTC personnel on the proper course of remedial action.
2. Establish situational awareness opportunities. For example, when a Coast Guard initial over-flight is planned to investigate a major pollution incident within the Makah U&A, the Coast Guard will attempt to provide a seat for the Makah Tribe Office of Marine Affairs manager.
3. Evaluate inclement weather and nighttime early detection technologies.
4. Develop a comprehensive dispersant use matrix.

The MTC and OMA recently delivered a presentation to major oil industry representatives outlining these programs and the benefit of further exploring partnerships between the MTC and industry to support the program proposals.

Additionally, the Makah Tribal Council Office of Marine Affairs intends to create a program to support establishing and maintaining a tribal-based response contractor organization. This tribal response program will be based on business models of successful response industry contractors and will ultimately provide resources and services similar to those provided by these response organizations. As they are developed, the MTC would offer these response capabilities to the shipping industry and regulators to augment any existing agreements.

It has taken a considerable amount of sacrifice for the MTC to incur the time and expense to create and staff the OMA. It is hoped that it can continue to build on the relationships in District 13 and to work with USCG headquarters to develop a tribal consultation and coordination policy that will serve to advance this relationship and that of the Coast Guard with tribal governments across the country.

About the author:
Chad Bowechop is the manager of the Office of Marine Affairs for the Makah Tribal Council located in Neah Bay, Wash. His duties include oil spill prevention and response issues.

For many years he and the Makah Tribal Council have been instrumental in helping Washington State create a safer marine environment by emphasizing tribal interests in oil spill prevention off the coast of Washington State and the Puget Sound.
The Office of the Federal Register, part of the National Archives and Records Administration, publishes regulations in the Federal Register, the official “newspaper” of the federal government, every work day. The office annually compiles all current regulations into the bound volumes of the Code of Federal Regulations (CFR).

**How Was the Federal Register Established?**

The idea for a centralized publication system for executive branch documents began during the Great Depression, when Congress began enacting a host of legislation that gave executive branch agencies increased authority to regulate. With this flood of new regulations, it soon became apparent that, because there was no standardized repository, it was difficult for the public and federal agencies to know which regulations were effective and enforceable.

This situation was dramatically highlighted when the Supreme Court decided a case involving an agency that tried to enforce a regulation that had actually been revoked by an executive order. No one—not the government, not the defendants, not the lower courts—was aware that the regulation had been eliminated.¹

In response, Congress enacted the Federal Register Act (FRA) in July of 1935. The FRA created the *Federal Register* as the official daily publication for presidential documents and executive agency rule and notice documents and established a central location for filing documents for public inspection.

The documents that the Federal Register Act requires agencies to publish in the *Federal Register* include:

- executive orders and proclamations;
- documents of general applicability and legal effect;
- documents that impose a penalty;
- any other documents that Congress requires.

The act also requires that these documents are made available for public inspection at least one day before they are published in the *Federal Register*. In 1937, Congress amended the FRA to create the Code of Federal Regulations, a codification (numerical arrangement) of all currently effective agency regulations.

The Federal Register Act created a partnership between the National Archives and Records Administration, the custodian of the documents, and the Government Printing Office (the printer) to promptly print and distribute the *Federal Register*. It also established the Administrative Committee of the Federal Register (ACFR), chaired by the archivist of the United States, to administer and regulate the *Federal Register* and the CFR. The other members of the committee are the public printer and a representative of the attorney general. The director of the *Federal Register* serves as secretary of the committee.

Publishing a document in the *Federal Register* provides the public official notice of a document’s existence, specifies the legal authority of the agency to issue the document, and gives the document evidentiary status. Each rulemaking document published in the *Federal Register* also shows how and when the CFR will be amended to include the new changes.

Within a decade of passing the FRA, Congress further refined the rulemaking process by enacting the Administrative Procedure Act, which established a uniform process for publishing, obtaining comments on, and finalizing regulations. This standard rulemaking process is known as “informal rulemaking.”
The Administrative Procedure Act requires that agencies in most cases issue a notice of proposed rulemaking (NPRM), provide an opportunity for public comments, issue a final rule with a concise statement of its basis and purpose, and make the final rule effective a minimum of 30 days after publication in the *Federal Register*.

**What’s in the Federal Register?**

It is organized into four main sections, in the following order:

- presidential documents,
- rules,
- proposed rules,
- notices.

**Presidential Documents**

The presidential documents section contains documents the president must publish and documents the president decides to publish.

In the first category of mandatory publication are executive orders, which are the president’s instructions to executive agencies on how to manage their operations. Executive orders are numbered consecutively and reprinted annually in Title 3 of the CFR.

Presidential proclamations are another category of documents that must be published in the *Federal Register*.

There are two types of proclamations, “ceremonial,” which designate special observances, and “substantive,” which usually relate to international trade, export controls, tariffs, or reservation of federal lands.

Examples of presidential documents that may but do not have to be published are administrative orders, presidential memos, and other miscellaneous documents.

**Rules and Regulations**

This section contains documents with final legal effect and general applicability to the public that amend the CFR and will be codified in the annual revision. This includes final rules, temporary rules, interim final rules, and direct final rules, as well as documents that relate to previously published rules, such as corrections and changes in effective dates.

**Proposed Rules**

This third section contains documents that announce possible changes to the CFR and solicit public comment on the proposal, such as notices of proposed rulemaking (NPRM) and preliminary rulemaking documents, including advance notices of proposed rulemaking and petitions for rulemaking. Other miscellaneous proposals and updates, including documents containing information on public meetings related to an NPRM, are also published in this section.

Since the early 1970s, the ACFR has required agencies to use a standardized format to provide greater uniformity and transparency for documents published in the final rules and the proposed rules sections of the *Federal Register*. Broadly speaking, the documents contain a preamble section, which arranges basic information on the “who, what, where, when, and why” of a document for the reader’s convenience.

In rule documents, the preamble section is followed by the regulatory text. The regulations require that agencies use headings in a particular order in the preamble section of their documents. The headings identify particular sections of the preamble as follows:

- agency
- action (final rule, proposed rule)
- summary
- dates (effective date of the rule, or comment date for an NPRM)
- addresses
- for further information
- supplementary information.
The supplementary information section of the preamble contains background information and explains the basis and purpose of the rulemaking. Agencies also use the supplementary information section to provide additional information that is required by law, agency policy, or executive order.

**Notices Section**
The final section contains documents describing official actions and functions of an agency that affect the public or provide important information, but do not amend the CFR. They do not impose requirements with general applicability and legal effect, and do not affect a rulemaking proceeding.

Some notices are required to be published by law, for example advisory committee meeting notices, notices of the availability of environmental impact statements, and certain orders or decisions affecting named parties.

**What’s in the Code of Federal Regulations?**
As mentioned above, the Office of the Federal Register also publishes the Code of Federal Regulations. The CFR contains agency rules that first appeared in the Federal Register.

On the effective date of rule, Office of the Federal Register editors incorporate the amendments from the rule into the CFR. Codifying the rules does not change their meaning or legal effect, it simply creates an organizational structure for the rules and allows readers to see the complete text of an effective rule without having to refer back to various issues of the Federal Register.

**What’s New in the World of Regulations Publication?**
In the mid-1990s, the Federal Register and the CFR entered the digital age when all Office of the Federal Register publications went online. And in the spring of 2008, we launched a new website, www.federalregister.gov, where you can find links to the Federal Register and CFR in either text form or as a pdf that looks identical to the corresponding print edition. From this site, you can also link to the electronic CFR (e-CFR), a current version of the full CFR that is updated daily and includes recently published rules.²

Finally, as part of the launch of the new website, the Office of the Federal Register’s public inspection file is now available online. In the past, viewing a document on public inspection meant coming to our office in Washington, D.C. Now, no matter where you are in the world, you can access the Federal Register website to see what documents will be published in the next day’s issue.

For more than 70 years, the Federal Register publication system has provided the public with a reliable and centralized source for the regulations that affect many aspects of our daily lives. Together, the Federal Register and the CFR help reduce inconsistencies, conflicts, and gaps in regulations.

This system also promotes transparency in regulations by helping you find and research regulations on a particular subject quickly and easily, which means you don’t have to maintain bulky files of revisions, ensuring they provide you a complete copy of an effective regulation. Finally, automating the entire system and making both publications available on the Web gives you or any other interested user the ability to access this important information from any computer, anywhere in the world.

**About the author:**
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Bibliography:
5 U.S.C.
44 U.S.C.
Office of the Federal Register’s Document Drafting Handbook

Endnotes:
2. While the e-CFR is an accurate version of the CFR and is updated daily, it is not an official legal edition.
Regulations should be expected to yield benefits that exceed their costs to society. Economic analysis, such as cost-benefit analysis, is a framework regulatory agencies use to estimate the likely costs and benefits of their rules. The motivation is to learn if the benefits of an action are likely to justify the costs or discover which of various possible alternatives would be the most cost-effective.1

Economic analysis provides agency policymakers with essential information that may not otherwise have been conveyed to them. Also, through the rulemaking notice and comment process, a rulemaking’s economic analysis provides the public with additional transparency regarding why an agency has undertaken a specific regulatory action and rejected alternative regulatory actions that may have accomplished the same objective. Even on those occasions when the costs or benefits of a regulation are difficult to monetize fully because of a lack of data, the economic analysis identifies and explains what information is available and still provides valuable information to assist decision making.

**Why Do an Economic Analysis?**

Government agencies such as the Department of Homeland Security are subject to legal requirements and internal executive branch requirements to analyze the costs and benefits of the regulations they issue. These regulatory analysis requirements have a lengthy history and are generally a requirement an agency must meet before a regulation can be published.

For example, President Ford’s 1974 Executive Order 11821 required an evaluation of the inflationary impact of federal regulations. In 1981, President Reagan required that “regulatory action shall not be undertaken unless the potential benefits to society for the regulation outweigh the potential costs to society.”2 President Clinton’s 1993 Executive Order 12866 required that “each agency shall assess both the costs and the benefits of the intended regulation and … propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.” President George W. Bush maintained this requirement to regulate only when the benefits of a regulation justify its costs.

Also, the Office of Management and Budget (OMB) under President George W. Bush established guidelines in 2003 that govern the economic analysis for regulations that have an impact on the economy of over $100 million in any one year. According to OMB, a good regulatory analysis should include three basic elements:

- a statement of the need for the proposed action,
- an examination of alternative approaches,
- an evaluation of the benefits and costs—quantitative and qualitative—of the proposed action and the main alternatives identified by the analysis.3

Regarding laws that require regulatory analysis, the Regulatory Flexibility Act (RFA) enacted in 1980 requires agencies to consider the economic impact of their rules on small entities. A “small entity” is defined as a small business, a small governmental jurisdiction, or a small non-profit organization. In 1996, the Small Business Regulatory Enforcement Fairness Act gave courts the ability to review an agency’s compliance with the RFA. Also, under the 1995 Unfunded Mandates Reform Act...
Act, an agency must prepare a written statement about the benefits and costs of a rule that may result in aggregate expenditure by state, local, and tribal governments, or by the private sector, of $100 million or more in any one year (adjusted annually for inflation).

Even if an agency were not required by law and executive branch requirements to consider the costs and benefits of its regulations, it would still be important that the agency do so. Typically, before a company invests a significant amount of money on a capital expenditure, that company has an internal process to estimate the benefits that would accrue to the company as a return on that investment. The company would presumably not choose to undertake a capital expenditure that fails to provide an adequate return on investment.

In that same manner, formal cost-benefit analysis of regulations assists agencies in deciding if a multimillion or even a multibillion dollar regulation is in society’s best interest to undertake.

The cost a business incurs to comply with a regulation often acts as an additional “tax” on that business, as it must spend its finite resources (such as money or time) to comply with the regulation’s requirements. When businesses spend money to comply with a regulatory requirement, they have fewer resources available for other purposes. For example, a business that is required to spend money due to a new regulation might be forced to delay spending on technology that could have made the company more efficient and profitable. Additionally, complying with a new regulation that imposes a cost based on the number of employees in a firm could act as a disincentive for that business to hire additional workers.

A Level Playing Field
The Coast Guard promulgates regulations to enhance homeland security, increase maritime safety, or protect the environment. Such Coast Guard regulations often correct for a “market failure”—a situation in which the market fails to produce an efficient allocation of resources. 4

In a competitive marketplace, a firm will not normally choose to make some additional investment in enhancing homeland security, protecting the environment, or enhancing maritime safety over its privately optimal amount, since the firm would be choosing to increase its operating costs when competing with companies that have chosen not to make similar investments. By establishing enforceable standards, regulations help to reduce competitive advantages that may be enjoyed by those companies that are under-investing in areas such as protecting the environment.

For example, regulations issued as a result of the Oil Pollution Act of 1990 (OPA 90) have been very successful in reducing the amount of oil spilled into the environment. A Coast Guard-sponsored study that analyzed the total costs and benefits of the 11 major OPA 90 regulations (such as double hull requirements, response planning requirements, and financial responsibility requirements) estimated that these major regulations will keep approximately 1.2 million barrels of oil out of the water while costing $10.6 billion during the 30-year period of analysis (1996 to 2025). Each barrel of oil kept out of the water due to the combined effect of this suite of regulations costs $8,657. 5 Without the regulatory requirements contained in the OPA 90 rulemaking, it is unlikely that companies would have invested so heavily in the measures needed for society to enjoy such a significant reduction in oil spills.

The Coast Guard has made a substantial commitment to providing quality economic analyses of its regulations. Since the early 1990s, the USCG has had a staff of regulatory economists at Coast Guard headquarters comprised of experts knowledgeable in performing regulatory analyses that comply with all of the controlling laws and executive orders. These regulatory economists work closely with Coast Guard experts in other
Small Passenger Vessels
In January 1996, the Coast Guard issued a final rule revising inspection and safety requirements for more than 5,000 small passenger vessels. Extensive risk analysis and public comment on the proposed rule, combined with a focus on high-risk vessel operations, enabled it to substantially reduce the original proposed requirements.

This approach helped the Coast Guard to ensure safety and reduce red tape by retaining strict requirements on riskier boat travel while substantially reducing the number of vessels required to carry additional life rafts and inflatable buoyant apparatus and to maintain crew and passenger lists.

These changes significantly decreased information collection and paperwork burdens and reduced annual costs from an estimated $10 million for the proposal to about $3 million for the final regulation.\(^1\)

Overfill Devices
As part of its rulemaking involving overfill devices, the Coast Guard helped to minimize the regulatory burden associated with oil spill prevention by permitting the use of stick gauges to signal the possibility of overflows from oil-carrying ships. This simple technology is a more cost-effective alternative to expensive and sophisticated alarm devices and gives the Coast Guard an easier way of monitoring the potential for an overflow.

The October 1994 interim final rule allowed these lower-cost devices on certain vessels, such as tank barges. This action is estimated to have significantly reduced the cost of the rule from about $90 million to approximately $40 million (net present value) over 15 years.\(^2\)

Tank Level Pressure Monitoring
OPA 90 mandated that the Coast Guard establish standards for devices that measure oil levels in cargo tanks or devices that monitor cargo tank pressure level and issue regulations establishing requirements concerning the use of these devices. Consequently, the Coast Guard issued a final rule in September of 2002 requiring a tank level pressure monitoring (TLPM) device in each cargo tank of single-hulled vessels carrying oil.\(^3\)

Even though it did not have discretion concerning whether or not to issue this rule, the Coast Guard estimated the rule would cost approximately $166 million dollars during the period of analysis (2003-2014), yet prevent only 874 barrels of oil from being spilled into the environment. This means that society would pay $190,000 for each barrel of oil the TLPM rule would keep out of the marine environment, versus the $8,657 per-barrel cost under OPA 90 regulations—22 times less cost effective.

In addition, the Coast Guard found that the TLPM rule could have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act. Subsequently, in 2004 Congress amended section 4110 of OPA 90 and granted the Coast Guard discretion in establishing performance standards and carriage requirements for tank level pressure monitoring devices. The Coast Guard, now with discretion in the area of TLPM devices, published a suspension of the TLPM regulations in July 2005.\(^5\)

Congress also required that the Coast Guard study the costs and benefits of alternatives to tank level pressure monitoring devices. The study found that the net benefits of alternatives to TLPM devices were no more positive than were calculated for the 2002 TLPM rulemaking.\(^6\)

Finally, in December 2008, the Coast Guard published a final rule that removed the requirement for TLPM devices.\(^7\)

While it is true tank level pressure monitoring devices that met the Coast Guard’s performance standard were unavailable, the economic analysis for the rule showed that even if a complaint device had been developed, the meager benefits generated by the rule rendered the rule a relatively inefficient allocation of society’s resources.

The bottom line: The most cost-effective TLPM regulation was no regulation at all.

Endnotes:
2. Ibid.
6. Coast Guard Report to Congress on Costs and Benefits of Alternatives to Tank Level or Pressure Monitoring Devices, March 2006.

However, it’s clear that the public has played—and will continue to play—a vital role in shaping Coast Guard regulations through the rulemaking process.

About the author:
Mr. David Houser has been the chief regulatory economist at DHS since 2004. Mr. Houser was previously chief of the Standards Evaluation and Analysis Division at Coast Guard headquarters from 2001 until 2004 and a staff economist at Coast Guard headquarters from 1998 until 2001.

Endnotes:
2. Executive Order 12291.
3. OMB Circular A-4.
The National Environmental Policy Act

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The National Environmental Policy Act (NEPA) requires that every federal agency, prior to making decisions, takes into account the possible effects that its actions will have on the human and natural environment. NEPA also mandates that agencies consider different alternatives that can accomplish the goals of their proposed actions. The act also established the Council on Environmental Quality (CEQ), which issues regulations and guidelines for federal agencies to implement and comply with NEPA requirements.¹

Additionally, NEPA empowers you as a citizen to influence the decision making process and improve the results. Your expertise, opinions, and ideas during the environmental analysis helps the U.S. Coast Guard policy makers reach more informed decisions.

However, the National Environmental Policy Act is not the main force behind USCG rulemaking; rather, it ensures that agency decision makers and the public are informed about the environmental impact of our proposed actions. NEPA does not require agency decision makers to choose the environmentally preferable alternative. When selecting a “preferred alternative,” other aspects such as economic effects and USCG missions are taken into account. The environmental analysis is one process among several that seek to inform and improve the rulemaking process.

It takes teamwork to develop a rule. A team of professionals with multidisciplinary backgrounds works to deal with all the different aspects of the proposed action. Among the team, you will find an environmental analyst.

The Environmental Analysis

The environmental analyst works particularly closely with the project economist, especially when an action is expected to have significant impact on the environment and there may be economic cost to reduce that impact. The economic and environmental analysis processes should begin at the earliest stage of the rulemaking since these considerations are often large decision elements during the entire process.

The level of environmental analysis that we perform for USCG actions depends on the level of environmental impact that these actions are expected to have. There are three basic levels of environmental analysis:

¹ The National Environmental Policy Act requires that every federal agency, prior to making decisions, takes into account the possible effects that its actions will have on the human and natural environment.
...categorical exclusion,
• environmental assessment,
• environmental impact statement.

Categorical Exclusion
Categorical exclusions (CE) apply to groups of similar activities that have a documented history of no significant environmental impact. An action that is “categorically excluded” does not need additional environmental analysis or research beyond a basic review that follows an impact checklist and, in the case of a rulemaking, an assessment of the provisions of the notice or rule.

Each federal agency develops its own list of categorical exclusions subject to an established review and approval process. The USCG list had public review and was reviewed and approved by the USCG Commandant and the Council on Environmental Quality (CEQ). This list is subject to periodic review and changes can always be suggested.²

Categorical exclusion documentation consists of the environmental checklist and the categorical exclusion determination. The checklist is used at the start of the rulemaking, or notice stage, and again at the actual rule stage, to identify areas of potential environmental impacts. It consists of several questions that determine the level of analysis the action requires.

We generally use the categorical exclusion determination at the rule stage to explain why the proposed action has no significant effect on the human or natural environment. The checklist and determination note the specific USCG categorical exclusions that apply to a particular action. They are published in the docket with the other rulemaking documents.

Environmental Assessments
The environmental assessment (EA) is the second level of environmental analysis. When either a CE does not exist, is determined to not apply, or we are not sure whether significant environmental effects may exist, an environmental assessment is developed.

The EA evaluates the level of significance of the environmental impact of a USCG action and examines alternatives. If, after an action has been carefully evaluated in the environmental assessment, it is concluded that it will have no significant impact on the environment, a “finding of no significant impact” (FONSI) is drafted. The FONSI summarizes why and how the USCG reached this conclusion. If Coast Guard environmental program staff determine that a FONSI is not justified and that further environmental analysis is necessary, an environmental impact statement (EIS) will be developed.

Environmental Impact Statement
The environmental impact statement is a level of environmental analysis that you’ve probably heard of, and is the most extensive level of environmental analysis done for USCG rulemakings. An EIS is prepared when an action is expected to have significant impact on the environment. The environmental impact statement is usually longer than an environmental assessment and provides a more comprehensive study of all reasonable alternatives as well as their environmental consequences on the affected environment.

It could take years to write an EIS, since this normally requires significant original research and specialized expertise. At the conclusion of the EIS process, a “record of decision” (ROD) is issued that states the final decision on the alternative the USCG has chosen, the reasons for choosing it, and plans to mitigate significant impact of the action.
Environmental impact statements and environmental assessments have much in common with regard to their content and development process. Both are reviewed by the Department of Homeland Security for sufficiency, consistency, and policy alignment.

**Programmatic EA/EIS**
Programmatic documents are developed for projects covering a large geographic area, a long length of time, or a series of several similar smaller projects. They are more generic than individual project EAs or environmental impact statements, and often tiered or more site- or project-specific environmental assessments and environmental impact statements follow.

**Notice of Intent and the Scoping Process**
We publish a notice of intent (NOI) in the Federal Register when the USCG plans to develop an EIS or an EA for an action that requires that level of environmental analysis. The notice briefly describes the proposed action and potential alternatives and tells members of the public and other interested parties how to participate if input through comments is requested. There are cases in which an NOI is published to announce the USCG’s decision to draft an environmental assessment, but no comments are required or requested.

A comment period during the scoping process offers an opportunity for you to participate and voice your opinion on a proposed action. The notice of intent announces the means of participation—written comments, public meetings, conference calls, informal workshops, etc.—and details such as times and places.

**Draft EA/EIS**
There is a draft and final stage for EISs and EAs. Draft environmental impact statements and draft environmental assessments are developed to present what we have found in our analysis and to request comments from the public and other interested parties such as states, tribes, environmental groups, industries, and federal agencies. Public involvement is required in the preparation of EIS/EAs. For environmental assessments, Council on Environmental Quality regulations provide guidelines for circumstances in which a draft FONSI is subject to public comment:

“In certain limited circumstances … the agency shall make the finding of no significant impact [and the draft EA] available for public review for 30 days before the agency makes its final determination …”

The circumstances under which the draft FONSI is made available for public comment are when “the proposed action is, or is closely similar to, one which normally requires the preparation of an environmental impact statement under the procedures adopted by the agency” or “[t]he nature of the proposed action is one without precedent.”

**Content**
The documents include an executive summary followed by the body of more specific information that can include detailed scientific study. The environmental assessment or environmental impact statement describes the proposed action and reasonable alternatives, including the “no action” (status quo) alternative, and an examination and comparison of their environmental consequences. The document also includes a brief description of the alternatives that were eliminated from consideration and the reasons why. The preferred alternative may be described in this section for the draft stage of the EIS.

The EA or EIS then goes on to define the affected environment, which consists of the resources: the physical and biological environment, the species and habitats affected, and the socioeconomic aspects of the area of study. This is followed by descriptions of the direct, indirect, short-term, long-term, and cumulative impact that each alternative is expected to have on the affected environment. The body of the EA/EIS or appendices often includes detailed scientific information concern-
ing the alternatives, affected environment, and environmental consequences.

**Notice of Availability**
The notice of availability (NOA) announces that the draft document is published and ready for public review during a specified comment period. Public meetings may be held during the comment period to further inform the general public and other interested parties such as tribal groups or environmental groups and seek comments.

The minimum required public comment period for a draft environmental impact statement is 45 days from date of publication. When a draft FONSI is made available for public comment, a 30-day public review period is required.

**Final EA/EIS**
After the draft EIS comment period closing date, any public comments as well as any additional analysis as a result of the comments or other information are addressed and the USCG’s preferred alternative is identified in the final environmental impact statement. We do not generally seek public comments at this stage, but can make exceptions. Nevertheless, the final environmental impact statements must be available to the public for 30 days before the agency takes final action.

Changes resulting from comments during a draft environmental assessment comment period will be included in the final EA. If a draft finding of no significant impact was made available for public comment, it can influence the FONSI and the final decision as well. This will help determine whether the next step may be to prepare an environmental impact statement if a finding of no significant impact is not justified.

**Consultation and Cooperation**
At the initial stages of the NEPA process, we consider whether to invite other federal agencies to participate as cooperating agencies.

These agencies provide input in many ways, such as preparing portions of the EA/EIS and participating in scoping. This arrangement also provides benefits such as having more efficient use of federal resources. Cooperating or joint lead status can also make it easier for one federal agency to adopt the NEPA work performed by another federal agency. In situations where there are cooperating agencies, one agency is normally the lead agency, but there may be instances where there are joint lead agencies, where both agencies are equally responsible and have equal control or special expertise needed for the proposed action.

In addition to NEPA, there are other important environmental laws that proposed actions need to comply with. This is one reason to consult other agencies, whose expertise on these environmental laws can benefit the environmental analysis greatly. For example, the USCG consults the National Oceanic and Atmospheric Administration (NOAA) and/or the Fish and Wildlife Service under the Endangered Species Act if the proposed action could affect endangered species. We may also consult with states under the Coastal Zone Management Act if the action might affect their coastal
zones, and with NOAA to determine the presence of an essential fish habitat under the Magnuson-Stevens Fishery Conservation and Management Act.

Court Challenges
A NEPA undertaking is subject to suit brought under the Administrative Procedure Act. The standard for review is whether our process and decisions, which are usually in the form of a categorical exclusion, finding of no significant impact, record of decision, or some action being taken, were arbitrary and capricious.

To successfully defend an environmental impact statement, we must show that we studied all impacts. For a FONSI we must show that the finding studied all impacts and that none of them present a potential for significant impact to human health and the environment (a much tougher proof).

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Endnotes:
2. The Coast Guard’s list can be found at 67 FR 48243, July 23, 2002.3. CEQ NEPA regulations, 40 C.F.R.
The modern process for making administrative policy—the informal, notice-and-comment rulemaking process—was developed in the U.S. when the Administrative Procedure Act (APA) was enacted in 1946.

The “notice-and-comment” label derives from the fact that the APA requires:
- publication of a notice of proposed rulemaking,
- opportunity for public participation in the rulemaking by submission of written comments,
- publication of a final rule and accompanying explanation.

This applies to the substantive rulemaking of every agency of the federal government and provides the procedural minimum for most significant rulemakings. More elaborate public procedures such as oral hearings may be used voluntarily by agencies in matters of great import.

As the virtues of this streamlined process for policymaking became more apparent, Congress began to authorize more rulemaking and agencies began to shift their focus from case-by-case policymaking to rulemaking. The “consumer decade” of the 1970s led to the enactment of major new health, safety, and environmental laws, all of which con-
tained broad rulemaking powers. By the end of the 1970s agencies were proposing and finalizing regulations at an unprecedented rate. Then the reaction set in—concerns about over-regulation arrived with the Reagan administration. The White House and Congress sparred over how to control the bureaucracy, and challenges to rules also began to receive a more hospitable reception in the courts as standards of judicial review tightened.

Since then, Congress, presidents, and the courts have each taken steps to require that agencies follow more rigorous rulemaking procedures. Congress has enacted both agency-specific and government-wide statutes requiring additional procedural and analytical requirements. Presidents beginning with the Nixon administration have issued executive orders giving the White House Office of Management and Budget (OMB) increasing power to review agency proposed and final rules before they can be published in the Federal Register. And judicial review of rules continues to be quite intensive. The result of all these developments is that informal rulemaking is now in danger of being ensnared in the same type of red tape that government has traditionally been accused of inflicting upon the public.

Congressional Add-ons
Although the APA remains largely unamended, Congress has enacted several important statutes that have made rulemaking more complicated both procedurally and analytically. It began by enacting several “hybrid rulemaking” provisions with additional oral hearing procedures in some important statutes governing major health and safety agencies. After a lot of criticism, Congress stopped doing this, but these laws are still on the books.

Second, it enacted a series of new analytical requirements modeled on the environmental impact statements originating in the 1970 National Environmental Policy Act. This law was hailed by environmentalists and other pro-regulatory forces, and was used extensively to slow down development that might harm the environment, but the EIS model spawned a series of other impact analysis requirements that proved to be primarily useful for business groups and others who were skeptical of regulation.

These include the Paperwork Reduction Act of 1980—an act that not only created the Office of Information and Regulatory Affairs (OIRA) in OMB, but gave it the authority to review forms, questionnaires, and also the paperwork impact of rules that contain reporting requirements. In the same year, the Regulatory Flexibility Act was enacted, requiring agencies to do an analysis of proposed and final rules’ impacts on small businesses and small communities, and to analyze alternative approaches to the rules as well. This law was markedly strengthened in 1996 by the Small Business Regulatory Enforcement Fairness Act, which subjected these requirements to judicial review.

A year earlier, in 1995, Congress enacted the Unfunded Mandates Reform Act, which requires agencies to do special assessments where proposed and final rules have an impact on state and local governments, and where the rule has a major impact on the private sector.

Presidential Add-ons
In addition to this list of statutory accretions to Section 553 of the APA, there have been a series of presidential additions. In 1971, President Nixon started this train by establishing a low-visibility, low-impact type of White House review of rules. Several agencies were required to submit a summary of their rule proposals, a description of the alternatives that had been considered, and a cost comparison of alternatives.

President Carter ushered in the first comprehensive system of presidential review by means of an executive order issued in 1978. Under his order, executive agencies were required to:

- publish semiannual agendas of any “significant” regulations under development by the agency,
- have the agency head ensure that the “least burdensome of the acceptable alternatives” was proposed,
- prepare a “regulatory analysis” that examined the cost-effectiveness of alternative regulatory approaches for “major rules” involving an impact of over $100 million.

He also established a White House group of economists to review the regulatory analyses prepared for proposed major rules and to submit comments on the proposed rules during the public comment period.

President Reagan upped the ante considerably with an executive order4 that turned the review process into a clearance process for virtually all substantive rules issued by executive agencies, to be performed by the newly established Office of Information and Regulatory Affairs.

The Clinton administration then produced E.O. 12866 in 1993. This order, which remains operative (pending a
review by the Obama administration), carried over many of the principles of the Reagan order, although it also made some significant modifications that simplified the process, made it more selective, and introduced more transparency into the OMB/agency consultations.

Nevertheless, E.O. 12866 retained the traditional level of $100 million annual effect on the economy for those major proposed and final rules that must be accompanied by cost-benefit assessments when forwarded to OIRA. One hundred million dollars in 1978 equals over $326 million in today’s dollars.5

In addition to the cost-benefit analysis required for major rules, and the several statutes mentioned above, another group of separate impact statements are required by a series of executive orders from various presidents, requiring special analyses during the rulemaking of a series of issues ranging from litigation impacts, takings of private property, federalism, environmental justice, protection of children, consultation with Indian tribal governments, and energy use impact.

Judicial Add-ons
Over the years, courts have interpreted the APA to require agencies to disclose important studies relating to proposed rules at the time of the notice of proposed rulemaking and to respond to significant public comments in the expanded preambles of the final rules. The courts have employed a “hard look” test in reviewing the substantive factual and policy bases of rules under the “arbitrary and capricious” test.6

The Consequences: A Decline in Rulemaking
Using statistics tabulated by the Competitive Enterprise Institute, the high water mark in both proposed and final rules was at the end of the Carter administration with 7,745 final rules in 1980 and 5,824 proposed rules in 1979. Even in 1983, in the middle of the first term of the anti-regulatory Reagan administration, there were 6,049 final rules and 3,907 proposed rules.

But after that, the number of proposed rules continued to decrease until 2005, when it reached only 2,257, and the number of final rules reached its nadir in 2007 with 3,595. This means that the government was publishing 54 percent fewer final rules and 61 percent fewer proposed rules as compared to 1979/1980, and even 41 percent fewer final rules and 42 percent fewer proposed rules than the Reagan administration in 1983. In the last several years, these numbers stayed relatively flat until there was a slight blip upwards in 2008.8

Proposals for Reform
In my opinion, the decline in rulemaking doesn’t mean that agencies have stopped regulating or making policies. Rather, it means that they have found less transparent, less participatory ways to do it—“guidance,” adjudications, and other informal “arm-twisting” techniques.9 What can be done about this?

Increase agencies’ ability to gather scientific and technical information. The APA does not restrict agency activities before the notice of proposed rulemaking (NPRM) stage. However, agencies must develop the information needed to propose a rule, or, sometimes, even to decide whether a regulatory strategy is the best one. If the agency does wish to proceed via rulemaking, it may also have to prepare the various draft analyses described above—each of which has its own information collection (and sometimes peer review) demands.10 This task is made more difficult by resource limitations, limits on surveys and other collections of information imposed by the Paperwork Reduction Act, and limits on meetings with outside groups imposed by the Federal Advisory Committee Act. In addition, sometimes the scientific information necessary to underpin a rule is not easily obtainable.

Once the rule has been proposed as an NPRM, then agencies must follow the APA process. This means reviewing and answering the public comments—an increasing number, due to the advent of electronic rulemaking. This also often means responding to sophisticated scientific and technical data and arguments. In addition, many agencies have internal rules restricting ex parte communications after the NPRM, which makes it difficult to consult with experts off-the-record. Moreover, agencies often must offer a second round of notice and comment if they are contemplating significant unforeseeable changes in the final rule.

The government needs to devote more resources to developing scientific data and research assistance inside
the government, and also needs to lower some of the barriers confronting agencies in collecting information from outside the government.

**Consolidate the various analytical requirements.** Experts have long recommended that the president and Congress reconsider the need for so many separate analytical requirements. It is difficult to criticize most of these requirements individually, since each has its own constituency. But since agencies must give separate consideration to each of them, it eventually becomes a burden. As sailors know, a few barnacles on a ship are not a problem, but the ship (even the “ship of state”) slows down when the hull becomes laden with them.

**Streamline the review process.** For these reasons the overall rulemaking process takes too long. Internally, agencies must obtain clearance from various offices. The program responsible for drafting the proposed and final rule (and its attendant analyses) must obtain signoffs from the general counsel’s office and various expert policy offices before obtaining agency-head clearance (and then sometimes run a similar gauntlet at the departmental level). And this is even before sending the rule (at both the proposed and final stage) to OMB for its review.

Since the Clinton administration, OMB has operated under a deadline for clearing these rules. Executive Order 12866 mandates a 90-day deadline for completing its review of agency submissions (with the possibility of one 30-day extension). But this still means that there is a potential 240-day delay just for the two OMB reviews, and OMB may send the rule back to the agency for revisions, as well.

According to a recent comment to the Obama administration, which is considering what to do with Executive Order 12866, two professors looked at all rules listed in the government-wide rulemaking agendas from 1995-2008 that resulted in a final rule and found that the average time from publication of the NPRM stage to the final rule for rules listed as significant (and therefore reviewed by OMB) was 503 days. For non-significant rules it was 385 days. Another piece of evidence was that, using the same database, independent agency rules, like those of the SEC—not reviewable by OMB—averaged 354 days, while those of executive departments took 413 days, and those of free-standing executive agencies like the EPA, 482 days. Moreover, this was just the post-NPRM review stage. OMB also reviews NPRMs, and OMB data from 2007 shows that its review of NPRMs averaged about 70 days.

As another commenter, a former regulator and congressional aide wrote: “I hate to be accused of channeling Bill Clinton, but [Keep it Simple Stupid]. That was the goal of those who crafted the Administrative Procedure Act, and we’ve all done a good job of gumming up the works in the last few decades.”

So, in the spirit of change, I would propose that we should go back to a more coordinative role for OIRA. It should be a resource for the agencies, not a stumbling
block. Make it a group of expert analysts who can help the agencies do economic analysis, risk analysis, priority-setting, and consideration of alternative approaches for important rules, and a group who, like the Carter group, can comment on agency rulemakings informally and formally. To free OIRA staff to do this, only a small selection of truly major rules (e.g., those with over a $300 million impact on the economy) should have to be sent to OIRA for White House and interagency review, unless the president directs otherwise on a rule-by-rule or agency-by-agency basis.

Revive collaborative approaches to rulemaking. In addition to revising OIRA’s role, I would like to see a renewed emphasis on collaborative approaches to rulemaking. In the 1980s and early ’90s, agencies often formed negotiated rulemaking committees to seek consensus on the text of a proposed rule. For various reasons ranging from front-end costs, concerns about the Federal Advisory Committee Act, and OIRA staff negativity, these efforts have tailed off in recent years. I believe that in certain situations, this process can work well and produce long-term savings of time and money for the agency and affected stakeholders.

Harness the Internet. Finally, I think the power of the Internet needs to be better harnessed on behalf of rulemaking. It clearly has great potential for increasing meaningful public participation and for democratizing the process even more. But the government-wide portal, www.regulations.gov, needs continuing improvements to keep up with technology; nagging legal questions concerning e-rulemaking (e.g., copyright, privacy, security issues) need to be answered; and agencies need to develop the wherewithal to handle the increasing number of comments that will inevitably result.

In Summation

The once-streamlined notice-and-comment rulemaking process has become too complicated—“ossified” to use a word favored by academics. The OMB review process needs to be more of a help than a hindrance, and the potential power of e-rulemaking needs to be harnessed in a way that produces benefits to the public and the agencies.

About the author:

Professor Lubbers has taught at American University’s Washington College of Law since 1996. Before that he was the research director for the Administrative Conference of the U.S., the federal government’s advisory agency on procedural reform. He has degrees from Cornell University and the University of Chicago Law School.

Endnotes:

1. Using statistics tabulated by the Competitive Enterprise Institute, the high water mark in both proposed and final rules came in 1971, with 7745 final rules in 1980 and 8284 proposed rules in 1979. These included the Consumer Product Safety Commission, Environmental Protection Agency, Federal Trade Commission, and Occupational Safety and Health Administration.


7. In 2008 there were 2,475 proposed rules and 3,830 final rules.


12. See comment by Professors Jacob E. Gersen and Anne Joseph O’Connell, at 1, posted Feb. 27, 2009 (comment No. 6).

13. See comment by Peter D. Galvin, at 5, posted March 20, 2009 (comment No. 106).


The U.S. Coast Guard has the most unique and diverse set of responsibilities for protecting Americans in the U.S. military. Between saving more than a million lives at sea (and counting), preserving law and order on the water, protecting citizens from waterborne terrorist threats, and promoting vessel safety and environmental protection, the Coast Guard is without a doubt one of the busiest government agencies. This extraordinary workload means that resources are stretched thin, requiring collaboration and creativity to solve problems and meet the challenges of the agency’s multi-mission portfolio.

The towing vessel inspection rulemaking is a case in point. The Coast Guard and Maritime Transportation Act of 2004 added towing vessels to the list of vessels subject to Coast Guard inspection and authorized the Coast Guard to establish a safety management system requirement for towing vessels, as recommended by the National Transportation Safety Board. This new statutory mandate posed a twofold challenge: first, navigating the time-consuming regulatory process and developing a new subchapter of the Code of Federal Regulations, and second, developing an effective way to meet the challenge of issuing certificates of inspection to more than 5,000 towing vessels.

The solution lay in unprecedented collaboration between the Coast Guard and the stakeholder community, providing a case study for how cooperation can result in common-sense regulations that provide real benefit to the nation.

The Road to Towing Vessel Inspection
The origins of the towing vessel inspection rulemaking date back to 2003, when a working group chartered by the Coast Guard/American Waterways Operators (AWO) Safety Partnership recommended establishing an inspection regime for towing vessels. In early 2004, with strong industry support, the Coast Guard went to Capitol Hill to request new statutory authority to inspect towing vessels.

The Towing Safety Advisory Committee
Congress responded quickly, and the Coast Guard moved immediately to initiate the rulemaking process to meet its new statutory mandate. In doing so, the agency drew on the resources of a federal advisory committee established by Congress for just this purpose: the Towing Safety Advisory Committee (TSAC). TSAC consists of members appointed by the Secretary of Homeland Security to provide advice on matters concerning shallow-draft inland and coastal waterway navigation and safety. TSAC’s diverse representation includes members from the tugboat, towboat, and barge industry; maritime labor; shippers; port and terminal operators; the mineral and oil supply vessel industry; and the general public. The committee expands
its reach even further by establishing working groups open to any hard-working, interested participant, enabling the Coast Guard to tap into a large and diverse body of perspectives.

TSAC has a long history of collaboration with the Coast Guard in meeting some of the most significant regulatory challenges to come before the agency and the industry, from improving oil pollution prevention and response in the aftermath of the Oil Pollution Act of 1990, to establishing new licensing requirements for towing vessel operators, to developing new regulations for vessel firefighting, emergency towing equipment, and navigation safety gear.

To meet the new challenge of helping the Coast Guard establish an inspection regime for towing vessels, including the requirement for a safety management system, the Towing Safety Advisory Committee created the Towing Vessel Inspection Working Group in the fall of 2004. For two-and-a-half years, TSAC worked to develop first an outline and then a comprehensive set of recommendations for an innovative and effective approach to towing vessel inspection. A special subgroup on risk-based decision making analyzed Coast Guard casualty data to ensure that the committee’s recommendations were targeted on the factors most critical to casualty prevention. More than 160 experts from all segments of the stakeholder community participated in the open, public meetings at which this work was accomplished: large and small companies; inland, coastal, and harbor operations; dry and liquid cargo carriers; fleeters and shipdocking companies; working mariners; maritime labor unions; and knowledgeable third parties including auditors, surveyors, naval architects, and consultants.

Then, in March 2007, at a public meeting open to working group members as well as the general public, the Coast Guard shared with TSAC a conceptual draft of a new subchapter, which included many specific regulatory provisions. For two days, stakeholders pored over the conceptual draft, subdividing into smaller groups to focus on the issues closest to their expertise. Two months later, TSAC submitted detailed “redline” comments to the Coast Guard offering the committee’s recommendations for improvements to the draft text.

And then, a year later, the Coast Guard did it again! The agency was so pleased by the constructive and thoughtful feedback provided by TSAC that the Coast Guard shared a second conceptual draft with the committee in February 2008. Once again, the Coast Guard gave stakeholders the opportunity to work with the agency before publication of a notice of proposed rulemaking (NPRM) in an attempt to produce a better starting point for public comment. The goal of this remarkable process was to develop a better NPRM by making maximum use of the special forum provided by Congress for this purpose.

As this article is being written, the draft notice of proposed rulemaking was in the administration clearance process, soon to be published in the Federal Register. Publication of the NPRM will mark the next phase of the regulatory process—one that, like the TSAC process, is open to all members of the public and offers the opportunity to improve further on the Coast Guard’s regulatory efforts.

The forthcoming towing vessel inspection regulations offer the promise of improved safety and environmental stewardship throughout the tugboat, towboat, and barge industry. The process by which they were developed offers the promise of a new model of government-stakeholder consultation and collaboration that can only enhance the federal regulatory process.

About the author:
Ms. Jennifer Carpenter, a former member of the Towing Safety Advisory Committee, serves as senior vice president of national advocacy at The American Waterways Operators, the national trade association for the tugboat, towboat, and barge industry. Ms. Carpenter has been with AWO for 19 years.
The term “social media” describes a manner of sharing information on the Internet characterized by user-generated content and interactions among those users. Social media tools include blogs, Internet forums, wikis, podcasts, live or recorded webcasts, social networking sites, and video and photo sharing sites. The Coast Guard uses a variety of social media tools to advance its missions and communicate with the public. One of the many possible ways the Coast Guard might use social media is in the development of regulations.

Social Media and the Coast Guard
The Coast Guard’s first foray into social media came with the development of a YouTube channel in February 2007. Following the development of a Coast Guard presence on YouTube, the service started to explore different social media applications and engagement.

ADM Thad Allen, Commandant of the Coast Guard, officially announced the way ahead for the use of social media in the Coast Guard and debuted his official blog in September 2008. “We are going to see very shortly in the Coast Guard a revolution on how we deal with information management in the new social media,” said Allen in his “way ahead” video message posted on YouTube. Allen is still the only military service chief utilizing a blog to communicate with the public and internal audience.

The Master Chief Petty Officer of the Coast Guard also utilizes blogging technology to communicate and collaborate on issues that directly affect the enlisted work-
force. The Coast Guard also started accounts on the social networking website Facebook and the photo sharing website Flickr in September 2008.

RDML James Watson, then-Director of Prevention Policy, started using a video blog to inform the public of the importance of the Coast Guard’s role in the global maritime transportation system. Headquarters staffs have even utilized wiki technology to collaborate real-time with field personnel on policy changes.

Most recently, the Coast Guard established an internal collaborative tool known as CGPortal, which incorporates wikis and blogs for improved knowledge management within the Coast Guard. In the future, the Coast Guard plans a public component of CGPortal, as well.

In addition to these top-level applications, many field units have begun to utilize social media tools. Deployed cutters are staying connected with families and friends through Facebook and blogs. District public affairs staffs are fielding questions and informing the traditional media outlets of Coast Guard activities through updates on the micro-blogging service Twitter.

Social Media in Rulemaking

In light of the Coast Guard’s success using social media in other missions, it is exploring how social media tools might become useful in the regulatory context. The use of social media tools—particularly blogs, wikis, and webcasts—could enhance public participation before and during rulemaking.

The use of blogs and wikis could help the Coast Guard improve public access to rulemaking documents by making those documents more easily detected by search engines, allowing the public to provide direct input into draft documents. Using live webcasts could make public meetings more accessible to the public and more cost-effective for the Coast Guard. Social media tools could also lower barriers to commenting and idea-sharing; dialogue conducted using social media tools could refine and improve the ideas eventually submitted for rulemaking.

However, using social media tools in the rulemaking process presents several challenges that are unique to government agencies.

First, developing and maintaining social media tools is expensive and time-consuming. With the exception of CGPortal and certain HomePort features, the Coast Guard does not currently maintain its own social media technologies. The Coast Guard can and does use commercial “off-the-shelf” products such as Blogger, YouTube, Flickr, Twitter, and WetPaint, generally at no cost to the Coast Guard or the public. However, using these products presents a variety of questions about each social media tool, such as whether the Coast Guard may agree to standard terms of service, how it can prevent inappropriate information appearing on sites associated with the Coast Guard, and how to control data that is saved on external web servers. Moreover, providing new content, responding to public comments, intercepting inappropriate comments, and maintaining the system all require Coast Guard resources.

Second, many types of social media tools require users to submit identifying information such as a name or pseudonym and/or an e-mail address. Although most blogging tools can accept anonymous comments, wikis generally require an identifier in order to track changes to content. Users could view webcasts anonymously, but most likely would require an identifier to participate. In an effort to protect minors, many commercial websites require users to provide a birth date, as well. Even though the Coast Guard itself would have no direct access to personal information provided by the public, it may need to consider whether privacy protections are appropriate.

Third, the Coast Guard has legal obligations to provide adequate public notice of its regulatory actions via the Federal Register, and to keep records associated with its rulemaking activities. Accepting public comment through other avenues without giving notice in the Federal Register may not satisfy existing law and could open any eventual rule to legal challenge. Collecting and preserving comments from a blog or—even more challenging—a wiki is a daunting task because of the potential volume of comments and because the informal tone used on social media tools makes it difficult to identify which comments are directed at the potential rulemaking.

As the Coast Guard moves forward with social media, it will need to maintain a clear line between idea generation conducted using social media tools and comments on the record that may be taken into account during the rulemaking process.

These and other legal obligations prevent the Coast Guard from conducting any rulemaking entirely through social media tools at this time. The Coast Guard must and will continue to publish its notices in
the Federal Register, and accept comment through traditional means (mail, fax, hand delivery, or online at www.regulations.gov). However, the Coast Guard is actively working to address the challenges discussed in this article, and to implement social media tools in a way that promotes public participation and results in better rules.

**Future of Social Media in the Coast Guard**

The way people gather and share information has changed forever. The morning newspaper and the evening broadcast news are no longer the means by which many people gather information. Large media companies are being replaced by average people (often people with little or no journalism experience) creating online content in blogs.

This trend in information dissemination goes well beyond the news media. People have begun to share information in new and creative ways. For example, Wikipedia, the online user-generated encyclopedia, has become the most popular reference site on the Internet according to Hitwise and Alexa Internet, Inc. More than 200 million people worldwide spend at least one day a month sharing and communicating information within the online social network Facebook.

Social media technologies have enabled this cultural shift in the way people gather and share information. These social media technologies allow the Coast Guard to go beyond the traditional means of one-way information dissemination to a truly interactive model. The public can now engage in real time with the Coast Guard to ask questions and collaborate on issues. ADM Allen addressed this issue in his social media “way ahead” message, stating:

“We need to understand that we are not living in the information environment that we grew up in. The rapid changes in technology, access to the Internet, personal computing, and even telecommunications and cell phones have dramatically changed our world. We need to understand that this is a permanent feature of our environment and we need to understand how to operate in it.”

In much the same way, the rulemaking process will need to evolve with this new environment. Social media technology is simply the next phase in e-government. Just as the rulemaking process evolved to include public comments through the online services at www.regulations.gov, we believe it will continue to evolve to include social media tools. As it does so, the Coast Guard will be prepared to use these new tools.

**About the authors:**

LT Anthony Migliorini is a graduate of the U.S. Merchant Marine Academy and has served in the U.S. Coast Guard for seven years. LT Migliorini has served at Sector Los Angeles/Long Beach and is currently assigned to the Office of Public Affairs at U.S. Coast Guard headquarters.

Rebecca Day earned her JD at the University of Michigan Law School. Prior to her work at the Coast Guard, she practiced energy and environmental law in the private sector, focusing on issues related to energy facilities, offshore operations, and spill risk management.
From its beginnings, the Coast Guard has depended on existing internal resources to provide safe and effective guidance for missions including public safety, national security, environmental stewardship, and exploration and development of mineral and energy resources beneath the U.S. outer continental shelf.

The Coast Guard’s role in public safety and national security has changed over the years. More focus has been directed toward security, which consequently significantly increased the Coast Guard’s role in offshore activities, particularly since the tragic events of 9/11. These additional mandated tasks prompted the Coast Guard to look for alternative means to gather information to fulfill its role in the rulemaking process for offshore activities. The Coast Guard found one means in the National Offshore Safety Advisory Committee (NOSAC).

NOSAC is a voluntary group assembled to assist the Coast Guard in gathering information for the rulemaking process, particularly with regard to rules related to protection of the safety and welfare of offshore workers, safeguarding the environment, and resource management. The group acts in an advisory capacity to the Commandant of the Coast Guard on matters related to the offshore mineral and energy recovery industry. The committee is also responsive to specific assignments related to conducting studies, inquiries, and workshops as authorized or directed by the Commandant.

NOSAC reports to the Commandant of the Coast Guard through its sponsor, the Assistant Commandant for Marine Safety, Security, and Environmental Protection, who designates NOSAC’s executive director. The National Offshore Safety Advisory Committee is composed of not more than 15 members from various sectors of the offshore industry, appointed by the Secretary of the Department of Homeland Security from recommendations made by the Commandant of the Coast Guard.

The majority of NOSAC members are made up of those involved in offshore exploration and energy recovery resources who have devoted time to assisting the Coast Guard in its mission to protect the offshore community’s workforce. Additional members come from the environmental community, the general public, and the deepwater ports community. NOSAC meets bi-annually, and the meetings are open to the public.

About the author:
Captain Bill Donaldson is a licensed master and a member of the Coast Guard’s National Offshore Safety Advisory Committee as its Deep Water Ports representative. Captain Donaldson currently works in marine engineering design, concept, and construction.

Endnote:
1 The passage of the Federal Advisory Committee Act laid the groundwork for forming NOSAC. In 1988, the Secretary of the Department of Transportation, under which the Coast Guard operated, created NOSAC to provide a public forum capable of rendering advice on, consultation with, and discussions of safety matters and concerns related to OCS activities. Creation of this public forum was directly related to the ever-increasing role assumed by the Coast Guard for safety and management of personnel and the affected environment due to activities related to exploration and development of mineral and energy resources beneath the outer continental shelf.
Lessons Learned
from Casualty Investigations

In this ongoing feature, we take a close look at recent marine casualties. We explore how these incidents occurred, including any environmental, vessel design, or human error factors that contributed to each event.

We outline the U.S. Coast Guard marine casualty investigations that followed, describe in detail the lessons learned through them, and indicate any changes in maritime regulations that occurred as a result of those investigations.

Unless otherwise noted, all information, statistics, graphics, and quotes come from the investigative report. All conclusions are based on information taken from the report.

A regular feature in Proceedings: “Lessons Learned From USCG Casualty Investigations.”
Research vessel’s destructive fire brings to light common yet overlooked fire dangers.

by Ms. Daisy R. Khalifa
Technical Writer

On a summer afternoon in August 2006, the M/V Odyssey Voyager was anchored in the Gulf of Mexico and wrapping up a day’s work with research divers at the El Paso Oil & Gas Pipeline. As the vessel was in the process of moving off the pipeline and heading back to port, its chief engineer smelled smoke while passing a dry storage chamber on the main deck port bow section of the vessel. He opened the storage room door, which sat right above the bow thruster room, and discovered flames on the port bulkhead about halfway up and lapping over the overhead of the room.

He tried to extinguish the flames, but the fire soon engulfed the main deck. As heat, smoke, and flame spread through the vessel’s main and upper deck, all crew and passengers abandoned the vessel in lifeboats. U.S. Coast Guard Cutter Pelican responded to the emergency and retrieved the crew and passengers as the fire continued to spread aboard the vessel. Two crewmembers suffered minor injuries, but there were no deaths as a result of the casualty.

Intense Fire
Because of the potentially explosive divers’ tanks, chemicals, and loaded fuel tanks, authorities did not actively fight the fire aboard the vessel. Coast Guard authorities and firefighters monitored the vessel fire for more than 24 hours after those aboard were evacuated. Even two days later, when authorities could finally board the vessel, one section was still hot, with small flames burning.

The intense fire was caused by heat coming from the bow thruster engine exhaust pipes, which ignited combustible items stored nearby. The vessel, which was salvaged for thorough inspection, was a total constructive loss. Outside marine safety consultants were called upon for comprehensive inspections and forensic analyses to better understand the origins of the fire and its contributing factors. The detailed investigation unveiled a number of lessons learned with regard to standard vessel fire safety, vessel response plans, and vessel fire salvage and investigation proceedings.

Detail of Events
On August 11, 2006, the 170-foot research and dive support vessel was conducting a routine offshore operation in the Gulf of Mexico. Aboard the vessel was a crew of 14 and 26 employees—some, divers from one company, and the rest employees of a company owning North America’s largest natural gas and pipeline system. The vessel and divers were hired by the gas pipeline company to close a sub-sea valve over a sea vent. For the duration of the job that day, the vessel was anchored in a four-point mooring configuration.

Upon completion of the work, one of the vessel’s four anchors was lifted. As the chief
Proceedings

as leaving the wheelhouse sometime around 3:30 p.m., he smelled something burning near the port main deck area and went to check on the bow thruster engine. He opened the door to a forward port-side dry storage room—located above the bow thruster compartment containing the access hatch to the bow thruster room. In the bow thruster storage room, he saw smoke and fire on the upper deck. The room was used to store spare engine parts and also contained collapsed cardboard boxes and a mattress.

The chief engineer left the space and returned immediately with two portable CO₂ fire extinguishers, but his efforts to put out the fire were unsuccessful. Within 15 minutes of discovering the fire, the captain ordered the lifeboats launched, and all abandoned the vessel. Coast Guard Cutter Pelican responded to the emergency and accounted for all 40 people aboard.

Two crewmembers suffered injuries while fighting the fire, including the chief engineer, who suffered smoke inhalation and cut his hand. Another crewmember suffered smoke inhalation while fighting the fire.

As the fire engulfed the vessel, firefighters did not actively attempt to extinguish the flames. The extreme heat coupled with potentially explosive materials aboard was too great a risk. The cargo on the vessel included 258 oxygen, nitrogen, and acetylene tanks used by the divers, as well as 30,000 gallons of fuel oil in its tanks. Consequently, no onboard firefighting efforts were conducted, and no one attempted to board the vessel for several days.

Salvage

By August 13 officials turned their focus to salvaging the severely damaged research ship. For much of that day, the vessel owner, a surveyor from the vessel’s flag state Vanuatu, and a representative from a pollution liability underwriter inspected the vessel.

On August 14, a towing office in Louisiana held a meeting in which the vessel owner, captain and some crew members, a salvage team, a pollution liability underwriter, and flag state representatives drafted the salvage plan for review and approval by the Sector New Orleans captain of the port. The vessel stayed at its location and was monitored until it could be towed to Morgan City for loss assessment.

Coast Guard officials from MSO Morgan City also interviewed many of the vessel’s crew, including the captain and chief engineer, and determined that a probable cause of the fire may have been an electrical problem in the bow thruster room, and that the fire intensified and spread when the chief engineer opened the bow thruster room hatch to investigate the smell. By August 16, a response plan was approved to deal with the damaged vessel once it reached inland waters.

Vessel Inspection and Fire Investigation

The vessel remained anchored in its position in the Gulf from August 11 until August 17, when the burned vessel was finally towed to a shipyard in Amelia, La., for a thorough investigation and forensic analysis.

Fire Investigation

Survey of August 19, 2006

On August 19, a team that included a representative from a forensic group and
surveyors boarded the vessel to begin the fire investigation survey. They were accompanied by representatives from the U.S. Coast Guard, the towing office where the salvage plan meeting was held, vessel crew (including the captain and chief engineer), and vessel owners.

An initial investigation was cut short in the middle of the day by the towing office representative because of safety concerns for airborne particulates, a lack of adequate lighting, and tripping hazards created by fire debris.

Despite the damage, investigators confirmed that the bow thruster diesel engine was either idling or in use at the time. A crewmember interviewed said he started the bow thruster at 12:30 p.m. on August 11, checked the operation three times before the fire was discovered at 3:40 p.m., and the last time he checked was 35 minutes before the fire, at which time he said he did not observe anything unusual in the storage area or bow thruster compartment.

Investigators also learned through interviews that the last work done on the bow thruster was on August 9, 2006, when the crew changed out the bow thruster engine water/sea water heat exchanger, which was leaking. They said no electrical work was done in either the thruster or storage rooms prior to the fire. Investigators noted the bow thruster room sustained minimal radiant heat damage around the access hatch and hatch ladder and that there was no significant burn damage in that room. Insurance assessors also visited the vessel to determine if it was a total constructive loss. By November 2006, they confirmed it was.

Fire Investigation Survey of August 29, 2006

Investigators focused on the pipes in the dry storage room, which were part of the thruster exhaust piping loop. This piping configuration eventually discharged through the port hull in the thruster room, as the report explains:

“That exhaust piping was covered with insulated blankets, secured with steel wire. The insulation sustained a small amount of impact damage on the stern side of the stern exhaust piping near the floor. Both [the captain and the chief engineer] stated there was a wall surrounding both exhaust pipes in the dry storage room. All of the walls were consumed in the dry storage room and throughout the main deck.”

During the examination of the fire scene, crewmembers who attended the inspection said there were no flammable materials kept in the dry storage room, and investigators observed there was no electrical wiring along the room’s port wall, save for a fluorescent lighting fixture on the ceiling. Crewmembers noted that the officers’ mess seating and storage was located adjacent to the dry storage room’s aft wall.

When the vessel inspection resumed on Aug. 29, the vessel’s captain provided investigators with information about the vessel’s interior configuration prior to the physical inspection, in particular that the thruster exhaust piping in the dry storage room was only covered with insulating blankets.

Combustible Materials

The inspection process involved the removal, sifting, and identification of debris from the floor in the main deck port dry storage room, as this was the area of origin identified by the chief engineer who first discovered the smoke on the day of the fire. Investigators provided a fairly detailed analysis of the bow thruster’s exhaust piping and determined that certain segments of the piping were not covered by insulation. As debris was removed, investigators observed the following:

“The initial inspection of the dry storage room on 08/19/06 indicated that the remains of a mattress was found leaning against the bow thruster forward exhaust pipe insulating blanket. All of the covering and filler material in the mattress was consumed. Removal of debris from the floor area around the starboard side of the forward bow thruster exhaust pipe uncovered the burned remains of cardboard and paper product in the vicinity of the steel doubler plate ring on the floor.”

As stated in the final report, investigators discussed combustible items and the auto-ignition properties of cotton, wood, and paper products to understand how and at what point the items stored in the dry storage room ignited upon extreme heat exposure to the bow thruster piping. A marine surveyor obtained information on the bow thruster engine exhaust temperatures, which he said can range between 600 degrees and 900 degrees F (316 and 482 degrees Celsius) depending on operating conditions.

The fire investigation report cites the 17th edition of the National Fire Protection Association’s (NFPA) Fire Protection Handbook, which provides data on combustion, whereby investigators arrived at the following determinations:
“Assuming the mattress was cotton, it would have an auto-ignition temperature range between 490 degrees and 750 degrees F (255 and 440 C). This means that exposure of the mattress cotton material to temperatures in that range will lead to self-ignition.”

Furthermore, with regard to the cardboard boxes and plastics that held engine parts stored along the port side of the engine room, the Fire Protection Handbook states that the combustion of wood and wood products is contingent upon a number of variables and conditions: “[The Handbook] indicates … that an exothermic reaction (sustained combustion) in wood occurs within the range of 536 degrees and 932 degrees. However, lower ignition temperatures can occur with long-term exposure.”

Thus, the case was made that “wood in contact with steam pipes or a similar constant temperature source over a very long period of time may undergo a chemical change resulting in the formation of charcoal which is capable of heating spontaneously.”

Investigators also explored combustibles in terms of their shape, form, position, and proximity to the heat source. In this context, they were considering a variety of scenarios involving the ignition of paper products, wood products, and long- and short-term exposure to heat sources and other factors influencing the combustion, such as environmental or physical conditions that allow the buildup of heat.

**Auto-Ignition**

Consequently, the marine surveyors’ findings, which were supported by the forensic analyst, arrived at the following conclusions as to the cause of the vessel fire:

“Based on the body of evidence developed in this investigation, more probable than not the cause of the fire … was the direct result of the placement of cardboard/paper products in the vicinity of the bow thruster exhaust, which allowed those products to be heated to their auto-ignition temperature.”

**Consistent Conclusions**

Following the marine surveyors and forensic analysts’ findings, a marine consultant provided a report underscoring much of what was concluded in the forensic survey. The marine consultant stated in this report that “a comprehensive inspection of the on board fire scene was conducted in accordance with the applicable systematic methodology outlined in the NFPA 921 ‘Guide for Fire and Explosion Investigations.’”

In this memorandum, dated September 27, 2006, the marine consultant provided a summary of events, followed by a discussion of the fire patterns and how it spread, as well as exploring the points of ignition and whether electricity played a role in starting the fire.

Through a visual, tactile, and photographic examination of the fire origin area at the main deck level state-room, the surveyor also closely examined the piping configuration. He provided information drawn from comparisons to a sister ship, the M/V Eugenia. The same dry stores room on the M/V Eugenia contained a fluorescent fixture, light switch, pushbutton station, incandescent fixture, and fire suppression system components. The marine consultant noted in his report that none of these components were installed near the location where the fire was first discovered.

Similar to the fire investigation survey and forensic analysis, the marine surveyor arrived at the following conclusion:
“The fire on board ... originated at the main deck level in the port forward dry stores locker. The area of fire origination contained shelving tools, mechanical parts and dry goods. The potential sources of ignition for the fire were limited to ... heat from the exhaust pipes for the bow thruster engine. An electrical fire causation of the fire has been ruled out by virtue of the location of the wiring and devices with respect to the area where the fire was discovered in the dry stores room. The most likely cause of the fire is the ignition of combustibles, possibly cardboard, by heat transferred through the exhaust pipe wall and/or deck plating. The source of the heat is likely the hot exhaust gases, in the order of 1,110 degrees F, generated during full load continuous duty operation of the bow thruster engine. However, a chemical reaction creating a spontaneous (self) ignition of the fire cannot be ruled out without knowing the products stored on the shelves in the dry stores room.”

No new issues calling for regulatory initiatives affecting this type of vessel were identified. However, based upon a Coast Guard-originated chronological case sheet and an overview connected with the salvage plan, there were questions regarding the ship’s vessel response plan, such as who was notified in response to the fire.

Though thankfully there were no lives lost as a result of this incident, the potential for tragedy was immense due to the explosive divers’ tanks, chemicals, and loaded fuel tanks on the vessel. In a stroke of luck, a crewmember happened to be walking by the area, allowing him to discover the fire in time to allow all crew and passengers to abandon ship.

We hope that the lessons learned from this casualty investigation will remind owners, operators, and crewmembers of the importance of proper storage of consumables and other combustible materials. We offer this article as a cautionary tale that will prompt vessel owners and crewmembers to closely inspect their vessels for similar hazards.

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Adrift in Fog

Poor visibility, errors in judgment, and diminished situational awareness lead to tragedy on the Ohio River.

by Ms. C A R O LY N S T E E L E
Technical Writer

In the foggy pre-dawn darkness of July 12, 2001, the captain of the towboat M/V Elaine G heard a cry for help from the dark waters of the Ohio River. It was 5:25 a.m., and the vessel was traveling at a speed of six knots. The captain had just relieved the pilot of his watch and assumed the conn of the 151-foot towboat, which was pushing 14 empty hopper barges along this stretch of river in Kentucky.

Other deckhands on watch had also heard the call from the water, so the captain sounded the general alarm and brought the engines to all stop, and then all back. He maintained position in the river for about 20 minutes while the crew searched for the source of the cry. At 5:50 a.m., having failed to find anyone in the water, the captain backed the 998-foot tow onto the Kentucky bank at Ohio River mile 568 for further investigation. At that point he contacted Coast Guard Group Ohio Valley by VHF radio, and reported that the tow was stopping to investigate. As they searched, crewmembers on the towboat discovered several items, including two seat cushions floating in the water between the starboard and center strings and the port and center strings of the barges. After the fog lifted, another merchant vessel assisted in breaking apart the Elaine G’s tow. The only signs of a possible collision with another boat were more items floating in the water, including two paddles, a plastic bucket, and a ball cap.

The Indiana Department of Natural Resources (IDNR) arrived first on the scene at 8:00 a.m., followed by the Coast Guard Marine Safety Office Louisville investigators, who arrived at about 1:00 p.m. MSO Louisville investigators examined reports which revealed that only the tow and a recreational vessel nearby at the time could have been involved in the accident.

On July 18, 2001—six days later—a 17-foot recreational vessel was recovered approximately three miles from where the collision occurred. It was found floating awash in a vertical position with the stern down. The body of a man was found under the starboard side steering console, and a large dog was found under the port side console. Over the next three days, the bodies of five other men were recovered between Ohio River miles 568 and 575. None were wearing personal flotation devices.

Damage to the Vessels
The initial investigation revealed damage that told a decisive story about what had happened—namely, that the smaller boat had drifted directly in front of the tow’s barges.

Damage to the towboat and barges
The towboat itself sustained no damage. When they examined its string of barges, Coast Guard and IDNR investigators observed scrape marks on the bow rake of the center lead barge. These marks, which began at 42.5 inches above the waterline and extended down approximately 20 inches, were consistent with the damage found on the recreational vessel.
**Damage to the recreational vessel**

The boat had scrapes in an 80-degree pattern on the port gunwale beginning approximately 19 inches from the stern and continuing forward three feet and four inches further. This was believed to be the initial contact point with the rake of the center lead barge, OR 2110. A similar pattern of 85-degree scrapes appeared on the port transom top, indicating a slight twisting motion around the time of the initial contact. The windshield was shattered and bent to starboard, and part of the forward handrail was missing, compressed, and bent at a 75-degree angle. The starboard forward handrail, also partially missing, was bent forward and down, puncturing the hull coaming at the bow.

More rust-colored transfer marks were found at several points along the outside of the vessel, and rusty flakes were found on the inside. Investigators discovered that the outdrive could not be shifted into reverse because of a misadjustment of the shift cable on the engine-mounted shift plate; however, it was unclear whether this problem was present before or caused by the accident. All three propeller blades had damage that was not consistent with propeller rotation under power. The boat’s red and green bow light lens was not in place, and the glass part of the bulb was broken. Indiana State Crime Laboratory analysis showed that the light was off at the time of impact.

**Coast Guard Investigation**

The Coast Guard’s investigation determined that the center lead barge in the tow (OR 2110) collided with the recreational vessel. The collision rolled the smaller boat, causing it to take on water over the stern and become awash. The swamping of the boat combined with the force of the collision with the tow drowned all six men aboard.

The question confronting Coast Guard investigators was how the accident could have happened given the fairly routine conditions that existed on the Ohio River that summer morning. Fog is typical along this stretch of the Ohio River. The towboat pilot and captain were seasoned, licensed mariners—between them, they had nearly 10 years of experience navigating the Ohio River. From the testimony of a friend, all the men on the recreational vessel were experienced fishermen and knew the hazards inherent to navigating on the busy Ohio River. The friend added that they were always well prepared when night fishing, and that they usually fished close to the Indiana bank, never in the middle of the river.

The Coast Guard investigation examined key issues, including visibility at the time of the accident, the status of lights aboard the fishing boat, the fishing boat’s profile in the water in relation to its radar signature, and the watchfulness of the occupants of both vessels.

**Non-causal Factors**

A variety of issues were considered in the investigation to determine not only what went wrong, but also what went right. On the towboat, nothing in the areas of equipment or crew experience appeared to have contributed to the accident.

**Equipment:** The pilot stated that he turned on the automatic fog signal just before the watch relief, as the
captain entered the pilothouse. The towboat was equipped with standard navigational equipment, including two radars and two VHF radios. Both radars had been recently serviced and were functioning properly. The tow was lit with a green running light on the forward starboard corner, a red running light on the forward port corner, a special flashing amber light on the forward centerline, and a seven-watt white “steering light” on a seven- to eight-foot pole located all the way forward in the center of the tow. In addition, the tow had 2’ by 2’ low-intensity lights at each barge coupling on the port and starboard sides.

Crew Experience: The captain held a fourth issue of a Coast Guard license. He had been a vessel captain for his current employer for approximately 2.5 years. The pilot held a second issue of a Coast Guard license. He had operated towing vessels for the company for approximately seven years.

Situational Awareness: The captain said that he was well rested, alert, and monitoring the radar at the time of the collision, stating he had about eight hours of sleep in the 24 hours before the accident. Blood analyses revealed that neither the captain nor the pilot took any medications that would impede their situational awareness.

Causal Factors

Problems on the towboat

Visibility: Fog in the area limited visibility to less than half a mile, which is why the pilot activated the towboat’s automatic fog signal. The captain and the pilot testified that they were unable to see either riverbank at a distance of approximately 1,000 feet. The captain of another merchant vessel 1.5 miles upriver said the fog was so thick he was planning to push his vessel into the bank if visibility did not improve soon. This witness went on to say that he could neither see the towboat’s stern tow lights nor hear her sound signals from his location.

The pilot of the Elaine G testified he began seeing fog when the vessel was about 3.5 miles from Ohio River mile 566.7, where he was relieved. He said that, when looking forward, he could see the “swing light” and the glow of the navigation lights mounted on the head of the tow, and possibly a little farther. The towboat’s empty barges were riding high in the water, making it harder for him to see objects in front of them.

Blind spots: Visual and radar blind spots from the vantage point of the towboat’s pilothouse prevented the pilot and captain from detecting the recreational vessel. Visual contact was made even more difficult by the fact that the small boat was unlit and riding low in the water.

The pilot and the captain of the towboat were relying heavily on radar that morning, and did not understand the full extent of these blind spots. The fact that the barges were unloaded exacerbated the problem. If they had taken these factors into account, they might have halted the voyage until conditions improved.

Diminished awareness resulting from the watch change: The captain and the pilot estimated that the watch relief took roughly five minutes to complete. However, investigators who later conducted mock relief changes found that it might well have taken less time. That means the recreational vessel may have already been in the towboat’s radar and/or visual blind spot when the captain relieved the watch, and the attention of the two men was diverted.

Lookout: The captain was serving as the sole lookout from the pilothouse at the time of the collision. A dedicated lookout on the head of the tow would have had a view of what was happening in the vessel’s blind spot—a view not available to the operator in the pilothouse—and would have been better able to hear any sounds indicating a risk of collision.

Radar clutter: Moments before the collision, radar clutter may have made the radar less able to display the recreational vessel on the screen. A large “ghost” image was probably showing on each of the radar screens, making the tow appear longer and wider than it actually was. A radar expert stated that open hopper barges,
especially empty ones without metal covers, cause radar signals to bounce erratically off the inside plating, producing a large cluttered image on the radar screen. Because these bouncing signals make the image of the tow itself appear larger to the radar viewer, they obscure radar contacts that fall within the oversized image. Even without the clutter, a small fiberglass boat riding low in the water would probably not have presented a surface reflective enough to produce a distinct image on the towboat’s radar screen.

Problems on the recreational vessel
The lack of a forward lookout and radar clutter on the towboat notwithstanding, the condition of the recreational vessel and its crew significantly contributed to the tragedy.

Lights: The recreational vessel did not have any navigation lights on at the time of the collision. When the boat was recovered, the red and green lens for its bow light was not in place, and the glass part of the bulb was broken. Analysis of the bulb revealed that the light was off at the time of impact. The vessel was recovered with no stern light in place and no locking mechanism on the stern light base. The stern light itself was never found.

Sound-producing mechanism: There was no fog signal in place aboard the vessel. The boat was equipped with a conventional horn; however, as fog absorbs sound, it was unlikely that this would have been heard even if it had been used.

Radar: The vessel was not equipped with VHF radio or radar, and had no radar reflector.

Overload: The recreational vessel’s loading exceeded the maximum weight rating recommended by the manufacturer by approximately 229 pounds, which would have decreased both the vessel’s radar signature and its visibility.

Unanchored vessel: The anchor and line were found inside the vessel when it was recovered, revealing that it was adrift at the time of the collision. As fog obscured the riverbanks, the fact that the victims were adrift meant they would have had no point of reference, and may have been unaware of their position in the river.

Crew situational awareness: The victims may have had severely diminished situational awareness at the time of the collision. Postmortem examinations revealed narcotics and alcohol in all six of the victims’ bloodstreams. The men had been out all night, and two of them had been on the water boating for approximately 16 hours, so fatigue may have also been a factor.

Lifesaving apparatus: No one aboard the recreational vessel was wearing a personal flotation device at the time of the accident. The coroner concluded that the external injuries found on the victims were not severe enough to have caused their death, so if the fishermen had been wearing personal floatation devices they might have survived.

Coast Guard Conclusions
The Coast Guard concluded that the collision occurred because the towboat operators failed to detect the recreational vessel and also because the crew aboard the recreational vessel did not detect the tow in time to take evasive action.

The Coast Guard cited violations of the following Inland Navigation Rules by the operators of the towing vessel:

- Rule 5—Every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.
- Rule 19(c)—Every vessel shall have due regard to the prevailing circumstance and conditions of restricted visibility when complying with rules 4-10.

In addition to possible violations of rules 5 and 19c, the Coast Guard cited possible violations of the following Inland Navigation Rules by the operator of the recreational vessel:

- Rule 9(b)—A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel that can safely navigate only within a narrow channel or fairway.
- Rule 23(c)(i)—A power-driven vessel of less than 12 meters in length may in lieu of the lights prescribed in paragraph (a) of this rule exhibit an all-round white light and sidelights.
- Rule 35(b)—A power-driven vessel underway but stopped and making no way through the water shall sound at intervals of not more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.
Lessons Learned

*Employ a designated lookout.* As this story illustrates, radar alone cannot take the place of human eyes and ears when a vessel is pushing ahead nearly 1,000 feet of barges at night in heavy fog. Both the captain and the pilot of the towboat were well aware that visibility was a problem: They later told investigators that they could not see either riverbank 1,000 feet away. As seasoned professional mariners, they should have been aware that both the large visual and the radar blind spots further diminished their ability to see. Other vessels in the area had either pulled over to the riverbank or considered doing so.

*Don’t let your guard down.* Even though things may seem routine, complacency can be deadly.

*Good seamanship.* Always keep in mind that fundamental principles of good seamanship apply to all mariners, regardless of vessel or crew size. Although the current maritime rules are not as stringent as those on the highway, the hazards of boating under the influence are the same. Boaters should have at least one person aboard who is alert and sober at all times—to do otherwise risks your own and other boaters’ safety. Boating without proper equipment is also extremely dangerous, particularly at night, in inclement weather, and on busy commercial waterways.

For the fishermen on the recreational vessel, what began as a fun night out on the river with friends turned deadly. This event serves as a cautionary tale for anyone who considers boating to be a risk-free pastime. In addition to carrying proper equipment in good working condition, safe boating requires vigilance and a high degree of situational awareness at all times.

No one from the smaller vessel’s crew survived to be held accountable, so the licensed crewmembers on the towboat shouldered most of the blame for the accident. Certainly they made errors, for which they were censured. However, those on the unlit vessel—drifting slowly into the path of an oncoming barge in the foggy darkness of that July morning—made many mistakes as well. Unfortunately, they paid the ultimate price for their lapse in judgment.

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About the author:
Ms. Carolyn Steele has over 20 years of experience in the communications field. As a freelance writer/editor she has worked on numerous Coast Guard projects since 2006, including the USCG Marine Safety Manual, the USCG Maritime Law Enforcement Manual, and USCG Publication 1. She is also the editor and designer of the Crew Endurance Management newsletter. Besides writing, Ms. Steele has an extensive background in graphic design and fine art.
1. A three-phase alternator operates at 450 volts with a 0.8 power factor. If the ammeter indicates 250 amperes, what should the kw meter reading be?

A. 90.00 kw  
B. 127.27 kw  
C. 155.70 kw  
D. 194.85 kw

2. According to Coast Guard regulations, boiler safety valves _________.

A. shall not have valves on drain lines  
B. will only be set and sealed by the chief engineer  
C. will be provided with a suitable lifting device operated only from the fireroom  
D. all of the above

3. Which instrument is used to take crankshaft deflection readings?

A. trammel gauge  
B. dial type outside micrometer  
C. dial type inside micrometer  
D. gauge block

4. To be in compliance with U.S. federal ballast water management regulations, what would be the minimum distance from any shoreline that a vessel must be located before it is permitted to perform a complete ballast water exchange?

A. 12 nautical miles  
B. 50 nautical miles  
C. 100 nautical miles  
D. 200 nautical miles
1. An example of an anchor with a stock is a __________.

   A. Bruce anchor  
   B. Dunn anchor  
   C. Hook anchor  
   D. Danforth anchor

2. BOTH INTERNATIONAL & INLAND: You are in charge of a power-driven vessel making way in dense fog. You observe what appears to be another vessel on radar half a mile distant on your port bow and closing. You must ________.

   A. sound the danger signal  
   B. exchange passing signals  
   C. sound one prolonged blast  
   D. sound one short, one prolonged, and one short blast

3. The gross weight of a fully charged CO₂ bottle in a fixed CO₂ system is 220 lbs. When the bottle is empty it weighs 120 lbs. What is the minimum acceptable gross weight of the CO₂ bottle before it should be recharged by the manufacturer?

   A. 200 lbs.  
   B. 205 lbs.  
   C. 210 lbs.  
   D. 220 lbs.

4. Which information is found in the chart title?

   A. number of the chart  
   B. edition date  
   C. variation information  
   D. survey information
1. A. 90.00 kw
   Incorrect Answer. For a single-phase alternator:
   \[ kw = \left( \frac{V_{\text{line}}(I_{\text{line}})(\text{pf})}{1,000} \right), \]
   \[ kw = \frac{(450 \text{ volts})(250 \text{ amperes})(0.8)}{1,000}, \]
   \[ kw = 90,000 \div 1,000, \]
   \[ kw = 90.0 \text{ kilowatts} \]

   B. 127.27 kw
   Incorrect Answer. Choice “C” is the only correct answer.

   C. 155.70 kw
   Correct Answer. For a three-phase alternator:
   \[ kw = 1.73 \left( \frac{V_{\text{line}}(I_{\text{line}})(\text{pf})}{1,000} \right), \]
   \[ kw = 1.73 \left( \frac{(450 \text{ volts})(250 \text{ amperes})(0.8)}{1,000} \right), \]
   \[ kw = 155,700 \div 1,000, \]
   \[ kw = 155.7 \text{ kilowatts} \]

   D. 194.85 kw
   Incorrect Answer. Choice “C” is the only correct answer.

2. A. shall not have valves on drain lines
   Correct Answer. 46 CFR 52.01-120 (c)(3) states: “The safety valve body drains required by PG–71 of section I of the ASME Boiler and Pressure Vessel Code shall be run as directly as possible from the body of each boiler safety valve, or the drain from each boiler safety valve may be led to an independent header common only to boiler safety valve drains. No valves of any type shall be installed in the leakoff from drains or drain headers and they shall be led to suitable locations to avoid hazard to personnel.”

   B. will only be set and sealed by the chief engineer
   Incorrect Answer. 46 CFR 52.01-120(c)(2) states: “The final setting of boiler safety valves shall be checked and adjusted under steam pressure and, if possible, while the boiler is on the line and the steam is at operating temperatures, in the presence of and to the satisfaction of a marine inspector who, upon acceptance, shall seal the valves. This regulation applies to both drum and superheater safety valves of all boilers.”

   C. will be provided with a suitable lifting device operated only from the fire room
   Incorrect Answer. 46 CFR 52.01-120(d)(2) states: “The lifting device required by PG–73.1.3 of section I of the ASME Boiler and Pressure Vessel Code shall be fitted with suitable relieving gear so arranged that the controls may be operated from the fire-room or engine room floor.”

   D. all of the above
   Incorrect Answer. Choice “A” is the only correct answer.

3. A. trammel gauge
   Incorrect Answer. A trammel gauge measures distances beyond the range of calipers. It can also be used as a divider through changing points.

   B. dial type outside micrometer
   Incorrect Answer. A dial type outside micrometer is used to measure outside distances or diameters.

   C. dial type inside micrometer
   Correct Answer. A dial type inside micrometer is used to measure the variation in the distance between adjacent crank webs as the engine is barred over. Readings are generally taken at five crank positions: top dead center, inboard, outboard, and one each side of bottom dead center.

   D. gauge block
   Incorrect Answer. A gauge block is a precision measuring device used in verifying the accuracy of ring, snap, and other special-purpose gauges. The blocks are also used in machine tool setup and in checking parts during the manufacturing process. Gauge blocks are available in sets of five to as many as 85 blocks of different sizes.

4. A. 12 nautical miles
   Incorrect Answer. Choice “D” is the only correct answer.

   B. 50 nautical miles
   Incorrect Answer. Choice “D” is the only correct answer.

   C. 100 nautical miles
   Incorrect Answer. Choice “D” is the only correct answer.

   D. 200 nautical miles
   Correct Answer. 33 CFR 151.2035 (b) states: “In addition to the provisions of paragraph (a) of this section, if the vessel carries ballast water that was taken on in areas less than 200 nautical miles from any shore into the waters of the U.S. after operating beyond the Exclusive Economic Zone, you (the master, operator, or person in charge of a vessel) must employ at least one of the following ballast water management practices:
   (1) Perform complete ballast water exchange in an area no less than 200 nautical miles from any shore prior to discharging ballast water in U.S. waters;
   (2) Retain ballast water onboard the vessel; or
   (3) Prior to the vessel entering U.S. waters, use an alternative environmentally sound method of ballast water management that has been approved by the Coast Guard.”
1. A. Bruce anchor Incorrect Answer. This is a claw or plow type, stockless anchor, typically used on small boats.
   B. Dunn anchor Incorrect Answer.
   C. Hook anchor Incorrect Answer.
   D. Danforth anchor Correct Answer. The Danforth anchor combines the stock of the old-fashioned anchor and the flukes of the stockless anchor. It is comparable in strength and holding power to a stockless anchor of approximately two times its weight.

2. A. sound the danger signal Incorrect Answer. As per Rule 34(d), the danger signal is sounded when vessels are in sight of one another and there is doubt regarding the actions or intentions of the other vessel.
   B. exchange passing signals Incorrect Answer. As per Rule 34, passing signals are exchanged when vessels are in sight of one another.
   C. sound one prolonged blast Correct Answer. Rule 35(a) states a power-driven vessel making way through the water shall sound, at intervals of not more than two minutes, one prolonged blast.
   D. sound one short, one prolonged, and one short blast Incorrect Answer.

3. Note: 46 CFR 91.25-20(a)(2) and Table 91.25-20(a)(2) state that fixed CO₂ bottles are to be recharged if weight loss of the charge exceeds 10%.
   A. 200 lbs. Incorrect Answer.
   B. 205 lbs. Incorrect Answer.
   C. 210 lbs. Correct Answer. The weight of the bottle when full is 220 lbs. When it is empty, it weighs 120 lbs., thus the weight of the charge is 100 lbs. A 10% loss of the weight of the charge amounts to 10 lbs. Subtract this amount from the total amount of the charge, and the result is 90 lbs. Add this amount to the weight of the empty bottle, which becomes 210 lbs.—the minimum acceptable gross weight.
   D. 220 lbs. Incorrect Answer.

4. A. number of the chart Incorrect Answer. The number is located at the corners of the chart.
   B. edition date Incorrect Answer. The edition date (or edition number) is marked in the lower left-hand corner of the chart, next to the chart number.
   C. variation information Incorrect Answer. Variation information is located within the compass rose on the chart.
   D. survey information Correct Answer. Survey information can be found within or directly under the official title of the chart.