

Producing Effective Audit Writing

Participant Workbook

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(NASACT)
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Course Objectives

This short session is designed to upgrade the ability to develop and produce persuasive audit documents. Participants will learn to

- understand how report content is generated by audit objectives;
- determine the hallmarks of a good objective;
- evaluate the logical link among objectives, findings, and recommendations; and
- determine that the four elements have been used correctly to develop persuasiveness.

Audit reports must be **useful** and highly **readable**.

A **useful** report presents busy decision makers with information that helps them make decisions. A **useful** report answers reporting objectives and supports findings by fully developing the relevant elements of a finding.

A **readable** report is accessible to the reader. It has a clear, well-organized message that is formatted on the page so that busy readers can find information they need quickly and easily. A readable document yields its meaning even when it is quickly scanned.

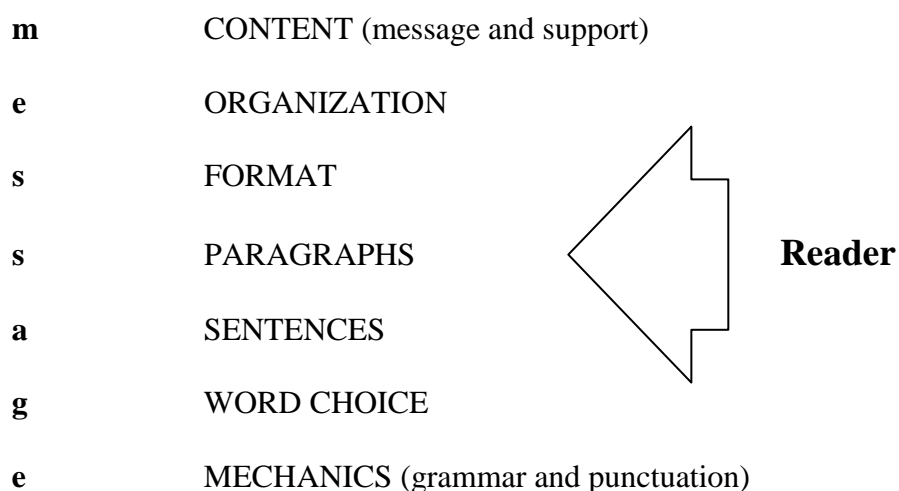
Auditing is a criteria driven profession. Auditors who hope to persuade a client of a problem must develop objective criteria based either in best practices or in written sources, like laws, rules, or regulations. Therefore, audit writing must also be driven by objective criteria or the process of review will simply become a matter of preference. One of the aims of this session is to provide those objective criteria.

Report Quality

Seven layers of a document like an audit report simultaneously affect readers as they read. If any layer fails to emphasize the message effectively, readers will have trouble discovering intended meaning and report quality will suffer. It's most helpful to see the seven layers working together from Higher Order Concerns (**HOCs**) to Lower Order Concerns (**LOCs**) even though most readers confront the lower order concerns first.

- **HOCs** include content, organization and format.
- **LOCs** include paragraphs, sentences, word choice, and mechanics.

Seven Layers of Report Quality



The effectiveness of each layer can be gauged by writing “tools” (not rules) appropriate to that layer. These tools have been formulated and proven effective through extensive research. Objective criteria for the HOCs are derived primarily from “best practices.” Objective criteria for the LOCs are derived from best practices (paragraphs and sentences) and from the rules governing grammar, punctuation, and printing.

Design Good Objectives

A good report begins with good objectives. Without an exact question, an exact answer is impossible. A good objective is clear, specific, and neutral, avoiding unstated assumptions. To achieve these goals, objectives must

- appear in answerable form and identify the subject, and
- describe the measurable performance aspects that indicate the performance audit job approach.

Answerable Form And Subject

Objectives can be phrased either as questions or as “to determine” statements. Such questions/statements can be phrased to be answered either by yes/no or by statements of the extent to which the entity is performing its tasks. For example,

- Did the Administration provide children in the foster family, out-of-home care program adequate and timely assessments of their needs? [will be answered yes or no]
- To determine to what extent the Administration provided children in the foster family, out-of-home care program adequate and timely assessments of their needs. [answer will describe to what extent]

The **subject** has two parts: It names the organization or entity and specifies the program, function, or activity under analysis. The two parts of the subject are bolded in the following objective phrased as a yes/no question.

- Did the **Administration** (*organization*) provide children **in the foster family, out-of-home care program** (*program*) adequate and timely assessments of their need?

Measurable Performance Aspects And Audit Approach

Performance is what management is held accountable for. Objectives must be clear about the performance aspects that an audit will examine. These aspects must be measurable. For example, the objective “To determine how well Social Security personnel responded to inquiries from the public” leaves open the question of what measure will be examined. Is it timeliness? Intelligibility? Accuracy? Results?

Performance audits encompass objectives related to

- assessing program results and accomplishments,
- economy and efficiency,
- internal controls, and
- compliance with legal or other requirements.

Strong planning will develop a focus on the approach that will yield the appropriate results. Entities may have strong internal controls but not accomplish what they are supposed to. They may accomplish what they are supposed to but in ways that do not comply with accepted procedures. Words selected for objectives, like “effectively” or “efficiently” should clearly indicate the approach to be taken. The team must know how this value will be measured.

Link Objectives with Findings

Because readers want to know what you looked at and what you found, be sure to link report objectives and audit results, to “answer the mail.”

There are six criteria for a good answer to an objective. Good answers

- 1) use most of the key words/phrases from the objective in the answer,
- 2) answer first, putting explanations or qualifiers second (but see #6),
- 3) avoid or immediately define inherently vague words (e.g., “many”),
- 4) separate audit results from the client results,
- 5) tell the whole story in a balanced way, and
- 6) explain any constraints on the data first (exception to rule #2)

The Four Elements Develop Support

Once the objective is answered, readers have other predictable follow-up questions that require writers to develop credible, persuasive support. These key questions correspond to the four elements of a finding. Findings support answers to objectives by comparing an observed condition to some criteria and by establishing the consequences and root causes of that situation. This information is required for developing a practical, useful, and compelling recommendation.

Traditionally, these elements of a finding are called

- **condition**
(*reader question: how are things being done presently?*),
- **criteria**
(*reader question: how must/could things be done?*),
- **effect**
(*reader question: what is the negative impact?*), and
- **cause**
(*reader question: why aren't things as they should be?*).

It is very helpful to develop the findings in the following way.

First establish that there is an “exception.” This is done by comparing the condition (what is actually being done; the actual performance) with the criteria (what **should** be done given laws/rules/regulations or what **could** be done given best practices). If condition does not match criteria, measure the “gap,” which is the difference between the two. This is often expressed as a conclusion, that some entity is not doing what they are supposed to do. Conclusions are different from conditions; conditions are neutral statements that simply state what is. For example, a factory could be contracted to produce 1,000 items a month (criteria). But it only makes 779 items in one month. The gap is 221 items; the factory is making 221 fewer items than it promised to. The gap by itself is generally not persuasive to clients because it tells them what they probably already know (“You are short 221 units this week.”). Many auditors believe that finding a gap between the condition and the criteria means that there is a problem. Not necessarily; at this point it is better to call it an exception, a difference. Step two will determine if this exception rises to the level of a problem.

The second step calculates the effect (the negative impact) of the exception. Effect can describe the here and now waste, fraud, abuse or it can describe the future risk (if an impact is not yet noticeable). For example, inspection of a roller coaster may reveal parts that are close to their expected useful lifespan; that indicates that there are exceptions not that the roller coaster is unsafe. It would be very persuasive to the client if the roller coaster either had an accident or behaved in a way that was clearly outside the criteria for safety. However, if there have been no accidents or incidents at the point of the inspection, the auditor will have to argue that the aging parts represent an unacceptable risk, that the roller coaster, though operating well, is an accident waiting to happen.

Third, if an exception has clear impact, either here and now or as future risk, the client should know what is causing it to happen (cause). While auditors generally isolate one root cause, we have found that causes are usually multiple for the most serious problems, taking in such issues as infrastructure, management, design, even material. For example, a bridge could have collapsed because of both poor design or poor materials or poor design, or all three. Causes lead directly to recommendations; the deeper the causes, the more useful the recommendation. It is true to say that the Titanic sank because it hit an iceberg, but turning that idea into a recommendation reveals that it is not the deep cause because the recommendation would have to be “Don’t hit icebergs.” We have seen many versions of this recommendation, especially in compliance cases, where the recommendation is “Do what you are supposed to do.” The deeper question of why aren’t they doing what they are supposed to do will lead to more diagnostic recommendations.

**The Logical Link
Connects Objectives,
Findings, and
Recommendations**

Throughout a report, the findings should link back to report objectives and forward to the recommendations. When reviewing a report, it is useful to check this logical linkage.

A finding should expose the root cause of the problem so that the recommendation makes sense. A recommendation that is not anchored to the finding in this way will seem to the reader to be new information, a “floating” recommendation. If readers clearly understand the cause and the impact of the problem, they are more likely to be motivated to take corrective action.

The following is a simplified illustration of this principle of the logical link.

| <i>The Logical Link</i> | | |
|-------------------------|-------------|----------------|
| Objective 1 → | Finding 1 → | Recommendation |
| Objective 2 → | Finding 2 → | |
| Objective 3 → | Finding 3 → | Recommendation |

Use Deductive Organization

Reports are more readable when they feature their bottom-line message up front. This kind of organization—bottom-line first—is called **deductive structure**. You might visualize it as a capital **T**. The bar on top represents the bottom-line message. The stem represents the details that must be included to support, develop, and exemplify the main message.

The ultimate readers of audit reports are decision makers, busy readers who don't have the time to sift through a lot of information to get to the bottom line. However, audit report writers are often used to setting context—giving background information or explaining all the details before coming to the point. This kind of writing—bottom-line last—is called **inductive structure**. While there are times when inductive structure is appropriate (such as in laying out a chronology or a process), always prefer the deductive structure and get into the habit of using it in all your writing on the job, especially in work papers.

Checklist for HOCs Analysis

- 1) Does the sample have a clear, specific, measurable objective? Yes No
Explain your answer briefly:

- 2) Is the objective answered correctly? Yes No
Explain briefly:

- 3) Does the sample feature the following elements in support of the message?
 - (a) Condition Yes No
Write an (a) on one place in the sample where you find condition

 - (b) Criteria Yes No
Write a (b) on one place in the sample where you find criteria

 - (c) Effect Yes No
Write a (c) on one place in the sample where you find effect

 - (d) Cause Yes No
Write a (d) on one place in the sample where you find cause

- 4) Look at the five recommendations carefully. Do any of the recommendations come as a surprise or are they all expected based on the analysis in the findings section? Mark them below if any do not seem to follow from the analysis and briefly say what/where the problem is.

Rec. #1

Rec. #2

Rec. #3

Rec. #4

Rec. #5

- 5) Overall, how -- **useful** is the sample [circle one] **least 1 2 3 4 5 6 7 8 9 10 most**
 -- **readable** is the sample [circle one] **least 1 2 3 4 5 6 7 8 9 10 most**

Briefly, what makes it readable and/or useful?

Sample #1**Condition**

Visitor logs are not used to maintain record of visits to areas housing server class systems at the Bureau of Labor Statistics (BLS) National Office.

Cause

BLS does not have a policy to record visitor entrances and exits to the areas housing server class systems.

Criteria

NIST 800-12, *An Introduction to Computer Security: The NIST Handbook*, states

The controls over physical access to the elements of a system can include controlled areas, barriers that isolate each area, entry points in the barriers, and screening measures at each entry point. In addition, staff members who work in a restricted area serve an important role in providing physical security, as they can be trained to challenge people they do not recognize.

Effect

By not properly securing areas housing critical system hardware, BLS may expose infrastructure assets to unauthorized individuals. This increases the risk that intentional or unintentional damage to system hardware and critical data housed on them may occur, possibly interrupting critical support services.

Recommendation

A visitors' policy and procedure requiring sign in prior to accessing areas with network hardware housing sensitive data should be established and implemented. The policy and procedures should be communicated and distributed to all support personnel.

Agency response

BLS currently escorts visitors to the server room but does not log their access. BLS is implementing controls that go beyond logging visitors. BLS will consolidate sensitive equipment in a server room now undergoing renovation. Redesign will limit access to the various areas to a single entry point, which will make establishing tight controls easier. Access of visitors and staff will be subject to check of identification.

Sample #2

Safety Inspectors Need “Smart Pig” Technology Training

Office of Pipeline Safety’s (OPS’s) 47 safety inspectors conduct inspections of transmissions pipelines to ensure the pipeline’s integrity and safe operation. In 1998, OPS inspectors conducted 768 inspections as part of a program to conduct inspections of each pipeline unit (pumps, pipelines, and components) every 2 to 5 years. Each inspector performs roughly 18 unit inspections per year, which typically average from 2 days to three weeks to perform. “Smart pigs” are machines that can be inserted into pipelines (e.g., those that run underground) to inspect pipeline integrity.

OPS conducts six different types of inspections. A System Integrity Inspection reviews the entire process of the operator’s program; the inspector acts as a safety consultant to help the operator ensure pipeline integrity. Compliance Inspections use a checklist to measure operator compliance with regulations. Risk management Inspections are limited to inspections of operators participating in the Risk Management Pilot Program. System-wide Inspections are very comprehensive inspections conducted by an OPS team every 5 years that review the operator’s entire pipeline safety program. The Operations and Manuals Inspection focuses on the adequacy and completeness of an operator’s operations and maintenance manuals used to safely operate a pipeline. New Construction Inspections are directed to ensure compliance with construction safety standards.

We found that OPS’s safety inspectors complete a core safety training program to conduct inspections. The core requirements include nine courses covering subjects such as gas pipeline system inspections, corrosion control systems, liquefied natural gas safety, materials joining, gas pressure regulation and overpressure protection, accident investigation techniques, regulation and compliance procedures, and hazardous liquid pipeline system evaluations. However, there are no courses in the program to teach inspectors about smart pig technology. Furthermore, OPS does not own or run smart pigs as part of routine safety inspections. Instead they must rely on summary reports generated by a vendor for the operator. In fact, the operator is not required to submit these reports to OPS even when pipeline defects are detected.

According to OPS officials, the agency plans to issue a Notice of Proposed Rulemaking on Pipeline Integrity Management for Hazardous Liquid Operators of Pipelines of 500 miles or More on March 30, 2000. The proposed rule would implement periodic inspections and the use of smart pigs to detect defects that can cause pipeline ruptures. The proposed rulemaking underscores our concern for the need for OPS inspectors to have the technical expertise to understand and make oversight decisions based on smart pig information.

Sample #3**Memorandum (Draft)**

This report presents the results of our audit of the U.S. Coast Guard's (Coast Guard) Abandoned Vessels Program (Program). The audit objective was to determine whether the Coast Guard effectively managed the Program, a program having significant ramifications on safety and the environment.

The Program was established to implement the Abandoned Barge Act of 1992 (Act). The Act made it illegal to abandon barges in the Nation's waterways and provided for penalties up to \$1,000 a day against owners. Further, the Act authorized the Coast Guard to remove those abandoned barges posing safety or environmental threats, and hold owners liable for clean up and removal expenses. In 1996, Coast Guard formalized its policies and procedures for managing the Program in Commander Instruction M16465.43 - Abandoned Vessels. This Instruction expanded the requirement to inventory abandoned barges to include all abandoned commercial and recreational vessel. However, only abandoned barges are subject to the Act's penalty provisions. The audit focused on abandoned barges, because of the more serious threat they pose. Further since the Eighth District (which oversees the lower Mississippi River and Gulf zones) had the largest number of abandoned barges, we focused on that District's management of the Program.

Results in Brief

The Eighth District has not managed the Program effectively. Consequently, serious environmental threats have not been mitigated, illegal dumping into abandoned barges has continued, and no fines have been assessed. Such fines are meant to both serve as punitive measures and act as deterrents against future barge abandonment and illegal dumping.

- Abandoned vessel inventories, at the three Eighth District's Marine Safety Offices (MSOs) reviewed, were inaccurate, outdated, and poorly maintained. Neither required inspections to identify abandoned vessels, nor surveys to determine the condition and content of abandoned vessels, were routinely performed. For example, the New Orleans and Morgan City MSOs abandoned barge inventories were based almost entirely on information provided by the State of Louisiana's 1994 survey. We identified inventory reporting errors due to poorly maintained records. In addition, our physical inspections disclosed inventoried barges, which could not be located; and abandoned barges, which were not recorded in the inventory records.
- The Eighth District's MSOs did not take effective action to ensure that 44 barges - containing approximately 1.7 million gallons of oil and related pollutants, many representing a serious environmental threat - were cleaned and removed. MSOs did not use available Oil Pollution (OPA) trust funds effectively to mitigate environmental threats posed by abandoned barges. Federal On-Scene Coordinators only applied for trust funds if pollutants from abandoned barges actually leaked into the waterways. They had not

used any OPA trust funds to remove abandoned barges used as dump sites in over five years.

- Fines for barge abandonment were not assessed by any of the MSOs reviewed. Contrary to Program guidelines, these MSOs had not contacted owners, many of whom were identified in the inventory files, to encourage them to clean up and remove abandoned barges, or be faced with fines and be liable for expenses incurred by the Government if mitigation actions were initiated. Program inventory files contained owner information for 24 of the 44 barges reported in 1997 as containing significant quantities of pollutants; yet, Program files contained no evidence of contacting abandoned barge owners. We tested the owner information for 13 randomly selected barges listed in the files and found that all of the identified owners were still in business. Furthermore, MSOs had not attempted to identify owners/operators of abandoned barges for which this information was not available from the State's survey because this was considered a low priority.

Recommendations

To improve Program effectiveness, we recommend the Coast Guard

- (1) compile an accurate abandoned vessel inventory, complete required surveys to determine the contents and condition of all abandoned barges subject to the Act, establish an effective record keeping system, and ensure management continuity when key personnel rotate;
- (2) develop a plan for mitigating the serious safety and environmental threats including the prioritization of clean up and removal actions needed;
- (3) clarify and formalize District policy to ensure timely and consistent use of OPA trust funds to clean up and remove barges and other vessels posing a serious environmental threat;
- (4) aggressively identify abandoned barge owners, and assess civil penalties authorized under the Act to encourage owners to clean up and remove abandoned barges and to act as a deterrent against future abandonment;
- (5) establish an effective District management oversight function to ensure that sufficient emphasis is placed on the Program and to monitor Program execution by the MSOs.