

UNITED STATES DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

**MINE INSPECTORS' WORKBOOK FOR
WRITING EFFECTIVE CITATIONS, ORDERS AND NOTES**

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EFFECTIVE WRITING - INTRODUCTION

Rationale

It is becoming increasingly important for mine inspectors to effectively express their inspection findings in written form. The quality of citations/orders has a tremendous impact on the activities following inspections.

Objectives

The mine inspector will write narratives for citations and orders that are grammatically and structurally correct.

The mine inspector will write narratives for citations and orders that are easily understood and descriptive of the violation that has been observed.

Sub-Objectives

I. Overview

The reader will understand the importance of clear, concise written communication for the mine inspector.

The reader will understand who reads the citation/order and what type of information they are seeking.

II. Mechanics of Writing

The reader will appropriately use punctuation marks in sentences.

III. Effective Sentence Structure

- The reader will rewrite phrases and sentences to eliminate complex or unnecessary words.
- The reader will rewrite sentences to eliminate ambiguity
- The reader will rewrite sentences to state them in active voice.
- The reader will rewrite sentences to emphasize the main thought.
- The reader will correct faulty subject and predicate agreement in sentences.
- The reader will correct faulty modification in sentences.
- The reader will rewrite sentences to avoid/correct awkward constructions.

CHAPTER 1 -- OVERVIEW

GOALS

- The reader will understand the importance of clear, concise written communication for mine inspectors.
- The reader will understand who reads the citation/order and what type of information they are looking for

Introduction

Clear, concise written communication must be the goal of any mine inspector when communicating through writing. Every written document must be clear, concise, and easily understood by each person reading it. Every document must also contain sufficient facts to enable readers to take appropriate action. Clarity is the key to effective written communication.

Often mine inspectors do not write with clarity because they have never been taught how to do so. Also, it is not unusual for mine inspectors to feel apprehensive about their writing. Approximately 20-25% of the general population has some nervousness about writing. Therefore, mine inspectors are reacting normally when they dread writing. Besides not being taught how to write, or feeling apprehensive, there may be other reasons for unclear, imprecise written communication.

The primary documents written by mine inspectors are citations/orders, inspection notes, and accident investigation reports. This booklet will focus only on those skills needed to write citations/orders and inspection notes.

Preliminary Considerations in Message Preparation

1. Ask yourself, "What do I know or believe that I want others to know or believe?" Each mine inspector should ask this question upon observing a condition or practice believed to be a violation of a mandatory standard.
2. Ask yourself, "What is my purpose in writing about this subject?" "What do I expect to accomplish by documenting this violation?"
3. Ask yourself, "What do I expect in the short-term?" "What do I expect in the long-term?" In other words, each mine inspector should have some anticipated outcome.

To conclude: Each mine inspector should have a *subject* in mind, a *purpose* for writing an order/citation, and *anticipated outcome*. If a mine inspector does not have these three items in mind, then he/she is likely to have unclear, imprecise written communication. The basic rule is the old standby, KISS (Keep is short and sweet or Keep it simple, stupid).

Receiver Analysis

Communication, whether oral or written, must be "receiver" centered. To be receiver centered your message must be specifically adapted to the particular reader for whom it is intended. In order to adapt a message, the mine inspector must know the receiver. Below is a list of receivers for whom you write. Describe the needs of each receiver.

- Mining Company Representative(s)
- Labor Representative(s)
- Miners
- MSHA Supervisor
- Other Inspectors
- MSHA Conference Officer
- Assessment Officer
- DOL Solicitor

Two Primary Forms of Messages

Nearly all messages encompass two goals: informing and/or persuading. Often our messages are meant to inform and persuade at the same time.

Informative messages are designed to provide information, ideas, data, details, and knowledge about a condition, practice, order, citation, rule, or action, or to justify an action. Informative messages are meant to simply give information so that a receiver or receivers can act or react. Informative messages have two components:

1. Clarity or clearness.
2. Objectivity or giving information that is unbiased, unprejudiced.

Much of a mine inspector's written communication must possess these two components. Therefore, all messages should be examined for clarity and objectivity.

Persuasive messages are designed to persuade, influence, convince, or sell an idea, concept, thing, action, or practice to the receiver. Occasionally a mine inspector will be expected to convince a receiver of a concept, practice, or action. In this written approach, the mine inspector will need data, evidence, or statistics to "sell" the receiver on the action or practice.

Goal: In both the informative and persuasive messages the goal is to get your receiver or receivers to engage in certain behaviors or change certain behaviors. The informative message gets receivers to engage in certain behaviors by informing them what is needed. The persuasive message gets receivers to engage in certain behaviors by persuading them to do so.

Elements Needed for Effective Written Communication

The elements used in a message, to a major extent, determine the meaning that is stimulated in the mind of the receiver by the message. The elements selected determine whether the message has power and is understood in the context given. Inappropriate elements in written communication will often lead to a distorted meaning in the mind of the receiver. As in oral communication, meaning is in the mind of the reader/receiver of the written message. Therefore, specific characteristics/elements are needed for effective written communication.

Accuracy. The primary requisite of effective written communication is that it accurately, clearly, and concretely expresses the meaning intended by the writer. The criterion for determining whether written communication is accurate and clear is the meaning stimulated in the mind of the reader. If the reader understands the intended meaning, the message is most likely accurate and clear. Accuracy refers specifically to the choice of words that express the idea. A message is accurate if the wording represents the meaning intended.

Clarity. This refers to understanding on the part of the receiver. Language may accurately represent the meaning intended by the writer but be unclear to the reader. For example, the term "refuse pile" may accurately describe a deposit of waste. This term, however, may not be understandable to your reader. Thus, though it is accurate, the message is unclear and does not stimulate in the receiver the desired meaning. Therefore, simpler or more thorough explanations may be required.

Grammatical Correctness. It is also important for the message to be grammatically correct. Although errors in grammar do not always cause misunderstanding, they frequently do, and, even more frequently, they cause the reader to perceive you to be of lower credibility than they otherwise would. As receivers, we are somewhat tolerant of grammatical errors when listening to a spoken message, but we tend to lose our tolerance when the message is in written form. Grammatical errors in this instance are avoidable; and if they are present, they indicate either carelessness or lack of knowledge.

Propriety. Language should be appropriate and suitable to the source, the receiver, and the subject. Language appropriate and suitable for discussing football is not appropriate for discussing citations, orders, practices, and actions in mine inspections.

Economy. Verbosity, a common fault of many writers, is the use of more words than

necessary to communicate an idea. This is frequently caused by lack of accuracy and clarity. Initial choice of good language will provide accuracy and clarity without needless repetition. Thus, accuracy, clarity, and economy are not completely separable.

Often, brief, accurate messages produce significantly more attitude change and understanding than wordier versions of the same message which are indirect, repetitive, or include numerous compound sentences. Economy enhances the effectiveness of messages.

CHAPTER 2 -- MECHANICS OF WRITING

OBJECTIVES

- The reader will use appropriate punctuation marks in sentences.

Punctuation

Punctuation makes a statement or sentence clear to the reader. Without punctuation, a statement might not make sense or it could be very chaotic. Imagine Chicago without any traffic signals or lights. There would be utter confusion and chaos.

GUIDELINES: The following are suggestions for writing and punctuating those types of sentences which frequently cause the inspector a problem

Items in a series. Items in a series must be separated to let the reader know how many items there are, and what those items are. A series can be composed of words, phrases, or clauses.

When the series is composed of simple words or phrases, they can be separated by commas. The comma before the *and* is optional.

Example: The inspector investigated the scene of the accident, interviewed eyewitnesses, and conferred with mine management.

Example: Carbon dioxide is a colorless, odorless, and tasteless gas.

If the items in the series already contain commas, a more complex method of punctuating is used. One acceptable method is to use a semicolon to separate the items.

Example: The inspector was accompanied on the investigation by Glen Curtis, mine manager; Fred Harris, superintendent; and Loren Adams, mine manager.

Another method of listing items in the series is to denote them by letter or number.

Example: The inspector was accompanied on the investigation by (1) Glen Curtis, mine manager; (2) Fred Harris, superintendent; and (3) Loren Adams, mine manager.

Bullets are another common way to indicate items in a series.

Example: The inspector was accompanied on the investigation by:

- Glen Curtis, mine manager;
- Fred Harris, superintendent; and
- Loren Adams, mine manager.

In this last example, note the use of the colon. This is the most common use of a colon. It is placed before a list of items, especially after expressions like *as follows* or *the following*. The inspector should probably restrict the use of the colon to this application.

Interrupters. Some expressions interrupt the flow of the sentence. These expressions add information that is not needed to understand the main idea of the sentence, but is necessary detail. If one of these interrupters comes in the middle of a sentence, it can be punctuated in two ways.

The interrupter is usually offset by commas, one before and one after the expression.

Example: The roof bolter operator, paralyzed with fear, was unable to run to safety.

Example: Jack Fisher, age 37, was injured in the accident.

Note the following sentences containing dates and addresses. The year and the state are treated like interrupters and offset by commas.

Example: The investigation was conducted on April 6, 1995, by John Jones.

Example: The mine in Beckley, West Virginia, produces 300 tons of coal a week.

When writing citations, two other good ways of handling interrupters are:

(1) Enclose them in parenthesis.

Example: The trailing cable supplying power to the Long Airdox roof bolter (SN 52-1002, approval # 2G 2372A-3) was not identified.

(2) Put them after the citation, if they are not essential to the meaning of the sentence.

Example: The trailing cable supplying power to the roof bolter was not identified.

Equipment: Long Airdox roof bolter, SN 52-1002, approval # 2G 2372A-3

Abbreviations. Using abbreviations when you write can help you save time. They are useful when you take notes or write a quick message. However, most abbreviations should be avoided in formal writing.

Use a period after most abbreviations.

Mr. Ms. Rev. Jr. A. M. B. C.

A few abbreviations are used without periods, including the two-letter abbreviations for the states. Other examples include:

MSHA UMWA DOL OSHA SGT

Punctuation Exercise

Directions: Place punctuation where necessary in the following sentences.

1. Upon arrival at the mine I contacted Joe E Brown superintendent and Jim Bishop safety committeeman and informed them I was starting AAA inspection

2. The single boom Long Airdox roof bolter was not maintained in permissible condition in that the cover of the main controller box contained three loose bolts the main controller box has an excessive air gap over .005" the 3" entrance glands to the main controller box were loose and packing nuts were not secured and a light switch was missing two lead seals

3. The automatic emergency parking brakes on the Trans Haul D95 scoop serial number 0081 located in the #2 section MMU 001 were not repaired within the reasonable time given for abatement.

Frequently Misspelled Words

The following is a list of words that mine inspectors frequently misspell.

abatement	inadequate
abating	intrinsically
accessible	judgment
accidentally	obviously
accordance	occur
alinement or alignment	occurred
appropriate	occurrence
cite	offered
citing	periodically
compliance	permissible
deenergize	recommendation
discrepancy	separate
discrepancies	slough
existence	settling
extremely	subsequent
gauge	terminate
guarding	timely
imminent	vacate

Spelling Exercise

Directions: Find and correct the spelling error in each of the following sentences.

1. The gaurd on the self-cleaning tail pulley of the #2 belt was laying on the ground approximately 10 feet from the #2 tail pulley.
2. There was heavy foot traffic threw this area.
3. The water at the bulkhead was allowed to rise to were it prevented miners from using the escapeway wich was used as a second way out
4. Company police states that eye protection would be used when operating grinding wheels.

CHAPTER 3 -- EFFECTIVE SENTENCE STRUCTURE

OBJECTIVES

- The reader will rewrite phrases and sentences to eliminate complex or unnecessary words.
- The reader will rewrite sentences to eliminate ambiguity
- The reader will rewrite sentences to state them in active voice.
- The reader will rewrite sentences to emphasize the main thought.
- The reader will correct faulty subject and predicate agreement in sentences.
- The reader will correct faulty modification in sentences.
- The reader will rewrite sentences to avoid/correct awkward constructions.

EFFECTIVE SENTENCE STRUCTURE

Write to Inform - Not to Impress

One of the biggest faults of "educated" writers is their tendency to use flowery terms and complicated sentences. They attempt to impress others by substituting words for thoughts. Nowhere is this practice more prevalent than in government writing. Consider the following story.

"A plumber of foreign extraction wrote the National Bureau of Standards and said he found that hydrochloric acid quickly opened plugged drainage pipes and inquired if it was a good thing to use. A scientist at the Bureau replied that 'the efficacy of hydrochloric acid is indisputable, but the corrosive residue is incompatible with metallic permanence.'

"The plumber wrote back thanking the Bureau for telling him that hydrochloric acid was all right. The scientist was disturbed about the misunderstanding and showed the correspondence to his boss - another scientist - who wrote the plumber: 'We cannot assume responsibility for the production of toxic and noxious residue with hydrochloric acid and suggest you use an alternative procedure.'"

"The plumber wrote back that he agreed with the Bureau - the hydrochloric acid works fine. Greatly disturbed, the scientists took their problem to the top boss. He broke with scientific jargon and wrote the plumber: 'Don't use hydrochloric acid. It eats hell out of pipes.'" *

*"Inside Washington" by the Chicago Sun Washington Bureau, Chicago Sun, February 17, 1947, p. 10.

Use Simple Words

Always prefer the familiar word to the obscure and the short word to the long. For example, say *pay* rather than *remuneration*.

Exercise - Use Simple Words

Directions: Substitute a simpler word for each of the following:

- | | |
|-----------------|------------------|
| 1. fundamental | 17. operate |
| 2. immediately | 18. regulation |
| 3. institute | 19. powerful |
| 4. elevate | 20. demonstrate |
| 5. impair | 21. option |
| 6. identical | 22. probability |
| 7. inflexible | 23. utilization |
| 8. imperfection | 24. substantiate |
| 9. frequently | 25. employment |
| 10. equitable | 26. adverse |
| 11. excessive | 27. sufficient |
| 12. remedy | 28. cognizant |
| 13. segment | 29. competent |
| 14. original | 30. terminate |
| 15. similar | 31. observe |
| 16. substantial | |

Use Only Necessary Words

Wordiness takes several different forms. Sometimes writers needlessly repeat ideas in different words or phrases, as in *necessary essentials*.

Another form of wordiness is indirect phrasing, such as writing *there is no doubt that* instead of the simpler *doubtless*.

Recognize the power of verbs. Strong verbs make your sentences move. Use action verbs such as *agree*, *examine*, *adjust*, and *consider* rather than the weaker verbal structure *is in agreement with*, *perform an examination of*, *make adjustments to* and *take into consideration*.

Exercise - Use Only Necessary Words

Directions: Substitute simpler words or phrases for each of the following:

1. fully cognizant of
2. interpose an objection
3. pursuant to your request
4. prior to
5. interrogate him
6. encounter difficulty in
7. in the initial instance
8. injured fatally
9. remember the fact that
10. at a distance of 100 feet
11. long period of time
12. in the year of 1968
13. come in contact with
14. area which is rectangular in shape
15. conditions that exist in the mines
16. at an early date
17. conditions which are less serious
18. there are three examples given and all three are satisfactory
19. arrive at the spot where the preparation plant is situated
20. a large number of
21. a majority of
22. the sum of \$10,000
23. taken into consideration
24. the city of Denver
25. For the purpose of providing
26. enough so that it will do
27. made the announcement that
28. enclosed herewith please find
29. in the opinion of the foreman
30. the order for a roof bolter was shipped
31. The 488 SS Scoop being operated in the No. 2 working section was being operated without directional lights.
32. The violation existed for approximately 8 hours prior to me making the inspection.
33. It was observed that a 777 Cat haul truck was parked with the bed of the truck in a raised position approximately two feet away from an overhead high power line.

Use Short Sentences

Your sentences should average between 15 and 17 words. This does not mean that every sentence you write must be short; on the contrary the pattern of sentences should vary.

Robert Gunning's Fog Index provides a good way to determine the readability of your writing.

FOG INDEX*

"To find the Fog Index of a passage, then, take these three simple steps:

"*One*: Jot down the number of words in successive sentences. If the piece is long, you may wish to take several samples of 100 words, spaced evenly through it. If you do, stop the sentence count with the sentence which ends nearest the 100-word total. Divide the total number of words in the passage by the number of sentences. This gives the average sentence length of the passage.

"*Two*: Count the number of words of three syllables or more per 100 words. Don't count the words (1) that are proper names, (2) that are combinations of short easy words (like *bookkeeper* and *manpower*), (3) that are verb forms made three syllables by adding *-ed* or *es* (like *created* or *trespasses*). This gives you the percentage of hard words in the passage.

"*Three*: To get the Fog Index, total the two factors just counted and multiply by .4.

"*Use the yardstick as a guide after you have written, but not as a pattern before you write.* Good writing must be alive; don't kill it with system.

*Gunning, Robert, The Technique of Clear Writing, pp. 38-40.

The following table compares the Fog Index with reading levels by grade and by magazine."

	<i>Fog Index</i>	<i>Reading Level by Grade</i>	<i>by Magazine</i>
	17	College graduate	(no popular magazine this difficult)
	16	College senior	
	15	College junior	
	14	College sophomore	
<i>Danger Line</i>	13	College freshman	
	12	High-school senior	<i>Atlantic Monthly and Harper's Time and Newsweek</i>
	11	High-school junior	
	10	Tenth grade	<i>Reader's Digest</i>
<i>Easy-Reading Range</i>	9	Ninth grade	<i>Saturday Evening Post</i>
	8	Eighth grade	<i>Ladies' Home Journal</i>
	7	Seventh grade	<i>True Confessions and Modern Romances</i>
	6	Sixth grade	<i>Comics</i>

Avoid Ambiguity

A major problem associated with writing is the use of words which imply an arbitrary standard. In the following example, each person must judge for himself what is "poor" or "adequate."

The brattice was *poorly* installed and it prevented an *adequate* supply of air from reaching the face.

Effective writing points out specifics or creates concrete pictures in the mind of the reader.

Below is a partial listing of ambiguous terms. If the words are used in a citation, a detailed description must follow. Keep in mind that each of these words implies a judgment, not a fact. You must include enough detail to substantiate your judgment.

accumulations
adverse
adequate (inadequate)
effective (ineffective)
excessive
properly (improperly)
protected (unprotected)
safe (unsafe)
secure (insecure)
substantial (insubstantial)
sufficient
suitable (unsuitable)

Tell what is, not what is not. In citation writing this means to describe the existing hazard, not just paraphrase the violated standard.

Negative: Selected supervisors were not trained in first aid.
Positive: Only one supervisor on the evening shift has had first aid training.
Forty-five workers are on the evening shift in five separate crews.

Exercise - Avoid Ambiguity

Directions: Eliminate the ambiguity in each of the following sentences by rewriting and supplying details which describe the situation.

1. Explosives and detonators were not separated by four inches of hardwood in the explosives truck.
2. Transformer enclosures were not kept locked against unauthorized entry.
3. The scraper operator's signalman in No. 33 Stope was not positioned in an area safe from moving slusher rope and fly rock.
4. The fence surrounding the transformer was not three feet from energized parts.
5. The Ventilation Plan was not being complied with, in that the operator did not have the required nine thousand feet in the last open crosscut.
6. The first aid supplies were not being maintained in suitable sanitary, dust tight, and moisture proof containers.

7. The trailing cable supplying power to the Joy Loading Machine on the two Right Section was not being maintained in a permissible condition.
8. The handrail to the elevated walkway was not substantial.
9. A safe means of access was not provided to the feeder hopper.
10. The roof bolting plan was not being followed suitable to the roof conditions.
11. The energized trolley wire at the mantrip station was not properly guarded.
12. An adequate supply of drinking water was not provided for the 3 North Section.
13. The deluge-type water system was found to be ineffective.
14. The disconnecting device for the Right Drive Shuttle Car on 001 Unit was not properly tagged and locked out.
15. Accumulations of combustible material were allowed to accumulate excessively on the frame and around the relay box of the 1401 Continuous Miner.

16. Loose ground was observed in the back and rib of the 46-26 Stope.
17. Safe mining methods were not being followed on the 2nd Bench of the North Quarry Wall.
18. Unsafe ground was not taken down from the pit wall near the pump installation.
19. The energized high voltage cable was not properly guarded where it crossed over and came in contact with the energized trolley-feed wire.
20. The ladder to the top of the oil storage tank was not anchored securely.
21. Stockpiles were not properly trimmed in the stockpile area.
22. The gate to the main substation fence was not effectively grounded.
23. The main explosives material storage area was not posted with a warning sign that indicated the contents and was visible from any approach.

Use Active Voice

Writing of any kind becomes more forceful by the habitual use of the active rather than the passive voice.

Passive: *The examination must be taken by all inspectors.*
Active: *All inspectors must take the examination.*

Exercise - Use Active Voice

Directions: Rewrite each of the following sentences using the active voice of the verbs:

1. A 6" discharge line connected to a dredge was being repaired by two employees.
|
2. Dozer training was being conducted and the trainer was observed riding on the outside cab deck.
3. Fall protection was not being worn by an employee who was working on an elevated platform. The platform was 10 feet high, and there were no barriers to prevent the employee from falling.
4. A hard hat was not being worn by a miner working in the pit.
5. Safety goggles were not being worn by a welder while he was welding.

Emphasize the Main Thought

Place the most important idea first in a sentence. Also make the main thought stand out by placing it in an independent clause and subordinating all other ideas.

Poor: The loading machine was being used to load coal with two temporary splices in the cable.

Better: Two temporary splices were in the trailing cable of the loading machine loading coal in the 3 North Section.

Exercise - Emphasize the Main Thought

Directions: Rewrite the following, emphasizing the main thought.

1. On the S&S scoop, model 488, Serial # 488-1396, located in the maintenance shop at the mine was found to be missing dust caps on the fire suppression nozzle.
2. The guard on the Bantam duster mounted on the single boom Long Airdox roof bolter, SN 52-1102, approval number 2G237380-3, operating in the No. 2 working section was not adequate to prevent a person coming in contact with the discharge auger.
3. At the Big Sky #1 underground mine, entered by a shaft in a low flood plain area, subject to flooding during heavy rainfalls, Joe Smith (foreman) was observed sending his crew down to work during a heavy rainfall in the flood plain area.
4. Inspectors were inspecting the crusher area of the mine and the inspectors observed the loader feeding the rock hopper. Two laborers were observed to be working below the hopper during the inspection of the crusher. The loader was

filling the hopper while the workers were below and the hopper was already full with the rock product.

5. The employee repairing the drive belt pulley on the drive belt motor of the #3 conveyor, located 14' above ground level, was not wearing a safety belt and line.
6. One employee was doing a pump inspection on the elevated pump station deck. An 8' section of handrail was missing from the east side of the platform.
7. During a regular inspection at the pit area of the mine, the blasting crew was observed preparing to shoot a section of the highwall for future excavation. The blaster (certified) and his two helpers were observed loading the drill holes. At the time this work was being performed the weather conditions were rapidly deteriorating due to an impending thunder storm.
8. Two employees were repairing a 6" discharge line connected to a dredge. Both employees were in a boat. No life jackets were being worn.
9. The 488 SS Scoop was being operated in the No. 3 Working Section without directional lights.

Subject/Predicate in Sentences

Two essential elements in any sentence are the subject and the predicate. A subject names the person, place, thing, object, idea, concept, or quality that the sentence is about. The predicate tells something about the subject.

Complete and Simple Subjects. The complete subject of a sentence usually contains more than one word. A complete subject includes all the words used to identify the person, place, thing, object, or idea that the sentence is about. To find the complete subject, ask yourself Whom? or What? the sentence is about.

A simple subject is the main word in the complete subject. Within each complete subject, one word directly answers the question Who? or What? This is the simple subject.

Complete and Simple Predicates. A complete predicate includes all the words that tell what the subject is doing, or that tell something about the subject. To find a complete predicate, first find the subject. Then ask, What is the subject doing? or What is being said about the subject?

Simple predicates have one main word or phrase that tells what the subject is doing or tells something about the subject. This key word or phrase is always the verb. A simple predicate, or verb, is the main word or phrase in the complete predicate.

Subject and Verb Agreement

A verb and its subject must agree in number and person. Singular subjects take a singular verb and plural subjects require a plural verb.

The normal way in English to make a singular noun plural is to add an -s or -es. Conversely, the normal way to make a singular verb plural is to remove the -s.

Singular The driller follows safe operating procedures.

Plural The drillers follow safe operating procedures.

When two or more subjects (singular or plural) are joined by the word *and*, the verb must be plural.

Example: The driller and his assistant follow safe operating procedures.

When two or more subjects (singular or plural) are joined by the word *or*, the verb must agree with the closest subject.

Examples: The driller or assistant follows safe operating procedures.

The driller or assistants follow safe operating procedures.

The drillers or assistant follows safe operating procedures.

Lack of subject-verb agreement usually occurs with the use of forms of the verbs *have*, *do* and *be*.

	1st Person	2nd Person	3rd Person
Singular	[I] have	[You] have	[He/She/It] has
Plural	[We] have	[You] have	[They] have
Singular	[I] do	[You] do	[He/She/It] does
Plural	[We] do	[You] do	[They] do
Singular	[I] am	[You] are	[He/She/It] is
Plural	[We] are	[You] are	[They] are
Singular	[I] was	[You] were	[He/She/It] was
Plural	[We] were	[You] were	[They] were

Inverted word order [VERB + SUBJECT] and the structure *there* + VERB + SUBJECT often cause subject-verb agreement confusion.

Example: There are many accidents caused by inattentiveness.
 There is a high rate of accidents caused by inattentiveness.

The following words regularly require singular verbs:

each	one	anybody
either	everyone	everybody
neither		

The following word may require a singular or plural depending on the context of the sentence:

all	majority	number	some
any	most	none	total
half	[other fractions]		

Examples: A total of twenty employees were working in the area, but none were injured.

The total was fifty.

The number of employees was fifty.

A number of employees were absent.

Two-thirds of this has been finished.

Two-thirds of these have been finished.

Subject and Verb - Exercise

Correct the following sentences, if necessary:

1. Two lock washer were missing from the main controller case.
2. Four flat washer are missing from the main controller box cover.
3. The battery box cover are missing locking devices.
4. Reflectors or reflecting tape were not provided on each end of the S&S scoop.
5. Two employees was cleaning under the tail pulley of 44B conveyor.
6. There was several methane ignitions at this mine in the past twelve months which contributed to the likelihood of an explosion.
7. Explosives and detonators was separated by four inches of hardwood.
8. A deluge-type water spray or foam generator which is automatically actuated by a rise in temperature were not installed.

Phrases and Clauses

It is important to be able to recognize phrases and clauses in sentences for two reasons:

1. When a phrase or clause comes between the subject and the verb in the sentence, inspectors commonly make the verb agree with the nearest noun rather than the subject of the sentence.
2. When a phrase or clause is used as a modifier, inspectors sometimes misplace it in the sentence, causing a misunderstanding on the part of the reader.

A phrase is a group of related words that function as a single part of speech. A phrase does not have a subject and a verb. A phrase can be used as a noun, an adjective, or an adverb. The most common type of phrase, and the only type covered in this text, is the prepositional phrase. A preposition usually introduces the phrase, and it always has an object, usually a noun or pronoun. Words commonly used as prepositions are:

about	besides	inside	since
above	between	into	through
across	beyond	like	throughout
after	but	near	till
against	by	of	to
along	concerning	off	toward
among	despite	on	under
around	down	onto	underneath
at	during	out	until
before	except	outside	up
behind	excepting	over	upon
below	for	past	with
beneath	from	regarding	within
beside	in	round	without

There are also commonly used phrasal prepositions:

according to	by reason of	in lieu of	up to
along with	by way of	in place of	with reference to
apart from	due to	in regard to	with regard to
as regards	except for	in spite of	with respect to

as to	in addition to	instead of	with the exception of
because of	in case of	on account of	
by means of	in front of	out of	

It has been suggested that many prepositions can be recognized as a word describing “any place a squirrel can go.”

A **clause** is a group of words that has a subject and a verb. A clause can also be used as a noun, an adjective, or an adverb. From the definition of a clause, you can see the difference between a clause and a phrase. A clause has a subject and a verb; a phrase does not have a subject and a verb.

Phrase: We arrived today after lunch.

Clause: We arrived today after lunch was finished.

(lunch is the subject; was finished is the verb)

An **independent (or main) clause** can stand alone as a sentence because it expresses a complete thought. A **subordinate (or dependent) clause** cannot stand alone as a sentence because it does not express a complete thought. Subordinate clauses are introduced by **subordinating conjunctions** or **relative pronouns**. A list of words commonly used as subordinating conjunctions are:

after	even though	no matter how	though
although	how	now that	till
as	if	once	unless
as [far/soon] as	inasmuch as	provided [that]	until
as if	in case [that]	since	when, whenever
as though	in order that	so that	where, wherever
because	insofar as	supposing [that]	whether
before	in that	than	while
even if	lest	that	why

The relative pronouns which mark clauses are:

that	which	whoever	whomever
what	who	whom	whose

Phrases/Clauses

Directions: Underline the prepositional phrases, and circle the subordinate clauses in each sentence below.

1. A contractor employee was not wearing a hard hat when performing a walk-around inspection of his haul truck on mining property.
2. The loader operator continued to load the haul truck when the driver exited the truck.
3. A miner was observed performing maintenance on the #8 stacking conveyor while the machinery was not blocked against hazardous motion.
4. A premature detonation of explosive charges has occurred at the number four draw point face injuring two miners who were attempting to blast oversized ore.
5. No apparent effort was made by the operator to replace the cab window on the Caterpillar 988 front-end loader which is being operated in the stockpile area.
6. On this follow-up inspection it was discovered that the severely cracked front cab window on the Cat 988 front-end loader has not been replaced by the termination due date of 1/16/97.
7. The toe of the stockpile was severely undercut and stress cracks were observed in the area where the truck was dumping.
8. The loader operator continued to load the truck even though he could not see the truck driver.
9. At 9:30 am the miner was observed reaching inside the tail pulley area with his left arm to remove a rock that he had just dislodged.

Subject and Verb (Intervening Phrase) - Exercise

Correct the following sentences, if necessary:

1. One of eight washers on the cover of the cab power switch were not aluminum.
2. Three bolts on the main breaker cover was loose.
3. The 3-inch entrance glands to the main controller box was loose and packing nuts were not secured.
4. The guards for the tail pulley was taken off and was lying 10' from the conveyor.
5. Accumulations of loose coal has not been removed from the number 5 entry of MMU 001-1.
6. Only one of 16 bolts were found in the main contactor control panel cover on the Joy 21 SC shuttle car.
7. No pre-shift records of examination exists for two months prior to the date of this citation.
8. Each of the employees have been reprimanded.

Faulty Modification

The position of a modifier determines the meaning of the sentence. Therefore, word, phrase and clause modifiers should be placed as close as possible to the word that they modify. Consider how the position of the modifier "only" changes the meaning of the following sentences.

Only the foreman was aware of the accident.
The only foreman was aware of the accident.
The foreman only was aware of the accident.
The foreman was aware only of the accident.
The foreman was aware of only the accident.
The foreman was aware of the only accident.
The foreman was aware of the accident only.

Improperly placed modifiers can cause confusion of the reader.

Faulty: The employee was repairing the elevated drive belt pulley without a safety belt and line.

Correct: The employee was not wearing a safety belt and line when repairing the elevated drive belt pulley.

Another related problem which can cause confusion for the reader is a dangling modifier. A modifier is said to be dangling if there is no word in the sentence that it can logically modify.

Faulty: A ground control plan was not submitted to the District Manager in which the mine was located.

Correct: A ground control plan was not submitted to the Manager of the district in which the mine was located.

Faulty Modification

Directions: When necessary, correct the faulty modifiers in each of the following sentences.

1. Due to excessive speed, the truck's brakes were applied, but would not hold sufficiently.
2. He was cleaning up spilled gravel from a conveyer with a front-end loader.
3. Occasional slips, rolls and clay veins are encountered which require close attention.
4. Taylor had hauled 20 loads of waste rock from the No. 32 power shovel with a 65-ton capacity truck.
5. The Margaret No. 7 Mine is located at Margaret, Pennsylvania, which was opened by 3 drifts and 1 shaft into the Upper Freeport Coalbed.
6. On arrival at the Black Hills Mine, the Northwest 180-D bank dragger was observed sloping the 150' deep highwall. While dragging the bank it was observed that the angle of repose was too great and could cause undermining of the machine.
7. Arriving at the 2550 level of the #9 shaft, when cage doors were opened, yellow caution tape was stretched across the section where the shaft gate had been

removed.

Correct Awkward Constructions

Most awkward constructions are caused by writers becoming confused in their thinking. Often the confusion occurs because they are trying to include several ideas in a single sentence.

Awkward: The Joy continuous miner was being operated in the No. 3 Entry without the proper amount of air was reaching the working face.

Correct: Only 500 cfm of air was reaching the working face of the No. 3 Entry where the Joy continuous miner was being operated.

Exercise - Awkward Constructions

Directions: Rewrite each of the following awkward sentences so that their meaning is clear.

1. The excess dust had been removed from the haulage road and made safe for haulage trucks to operate.
2. The operator was not wearing his seat belt when operating the No. 9 Caterpillar Dozer, which was provided with roll protection and seat belt, in the 1260B Pit Spoils on approximately 30° slopes and in danger of overturning.
3. An air reading in the return air course 30 feet outby the No. 2 Crosscut from survey station No. 123 showed a movement of 6000 cfm with a methane content of 6% taken with a methane detector 14 inches from the roof and rib.

4. Material loaded on flat trams were parked on the No. 1 and No. 2 passing track in 1 Right Section and were not secured from rolling down hill onto the main line track.
5. Loose coal and coal dust were loaded and removed and adequately rock dusted.
6. The trailing cable on the No. 1 Shuttle Car (Serial No. 1534) bare wires were showing through the vulcanized splices.
7. The area beneath the highwall of the No. 2 Pit extending 100 feet on either side of the loose rock and 75 feet in width paralleling the highwall.
8. The single boom Long Airdox roof bolter was not maintained in a permissible condition in that three loose bolts on the main control box causing an excess gap of .007".
9. The accident was caused by using field expediency to perform repairs on a vehicle without having safe and proper access to parts being repaired; by failing to block securely the box of the truck which was in a raised position.

10. An adequate smoking material program was not being conducted in that there were 6 cigarette butts (1 Salem, 2 Marlboro, and 3 Kools) were found in the scoop bucket.

11. The S&S scoop was not provided with a manual actuator for initiating a fire suppression device and was not readily accessible to machine operator.

12. A combination of rock spillage, fly ash, and ice on the 8' X 16' roof over the drive house for the 1A conveyor caused the roof to flex downward approximately 6" and are in danger of failing.

13. A combination of age, due to wear, water and mud buildup, caused the wooden planks for the gallery of number 3 conveyor to rot away, making it unsafe for walking on the walkway on the number 3 conveyor to check the head pulley.

14. The back-up alarm on the Cat FEL, serial # 8967, was not being maintained in a functional condition and it was observed working at the #2 stockpile loading customers' trucks.

15. Missing handrail, 5 feet long, was missing on the staircase, 5th floor going to the 4th floor on the primary crusher.