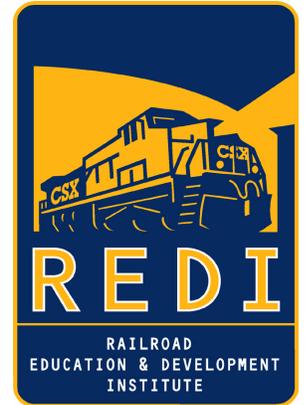


COLOR LIGHT SIGNAL ASPECTS

Seaboard Signals
Former Conrail Territories
C & O Signals



1. The operation of many trains over the railroad at the same time makes it mandatory to have Operating Rules. One very important part of these rules is the section on Fixed Signals. They are a means of communicating instructions to engineers, trainmen, and on track equipment.
2. One signal system used is the COLOR LIGHT SIGNAL SYSTEM. The three colors used are **RED, GREEN, AND YELLOW**. The names ordinarily associated with the colors are STOP with **RED**, CLEAR with **GREEN** and APPROACH with **YELLOW**.
3. Single, Double, or Triple **COLOR LIGHTS** may be used to convey instructions to engineers and trainmen. In addition to STOP, CLEAR, and APPROACH instructions, the speed and applicable block are also conveyed by signal aspect. The most involved instruction for a particular block determines whether a one, two, or three light signal is used.

This guide is designed to help you learn to read the Seaboard Color Light signals, the color light signals on the former Conrail territories, and those found on the former C & O. The book is divided into three sections; one for the Seaboard signals, one for the former Conrail territories, and one for the former C & O territories. Learn the signals in the section specific to your territory.

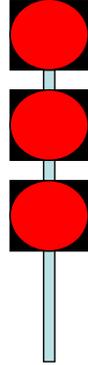
This is intended to be a supplement for use in learning the color light signal systems found on your territory and should not replace careful study and understanding of the information contained in the Signal Aspects and Indications Rules that apply to your territory. Dwarf signals are not covered in this guide.

Seaboard Signals

SECTION 1

RULE 1292: STOP

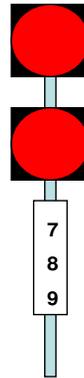
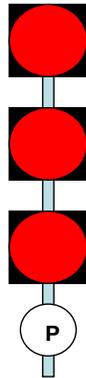
The name of the signal displaying all red lights without a “P” marker, “G” marker, or number plate.



RULE 1291: RESTRICTED PROCEED

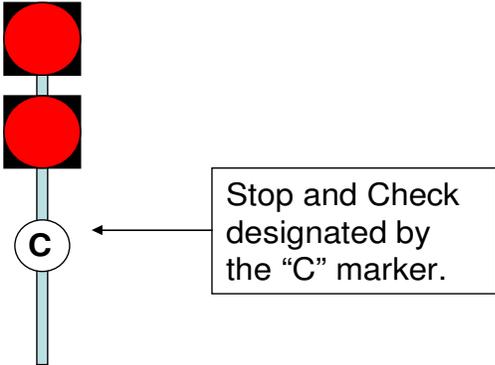
Proceed at Restricted Speed

Restricted Speed – A speed that will permit stopping within $\frac{1}{2}$ the range of vision. It will also permit stopping short of a Train, a Car, an Obstruction, a Stop Signal, a Derail or an improperly lined switch. It must permit looking out for broken rail. It will not exceed 15 MPH.



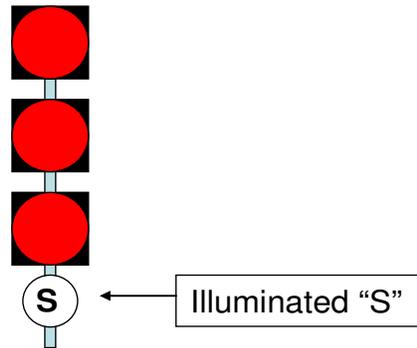
RULE 1293: STOP AND CHECK

Stop and check position of drawbridge, spring switch, derails or gates protecting railroad crossings. If way is clear and drawbridge, spring switch, derails or gates are in proper position, proceed at Restricted Speed.



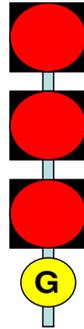
RULE 1294: STOP AND OPEN SWITCH

Stop and open hand-operated switch.



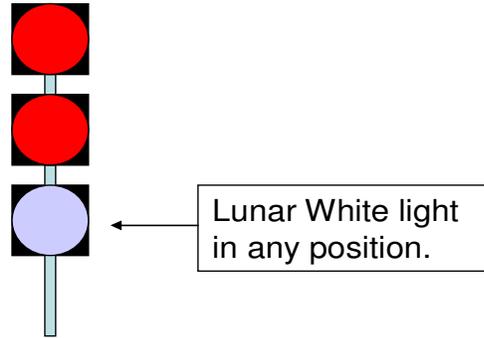
RULE 1298: GRADE

Proceed at Restricted Speed.



RULE 1290: RESTRICTING

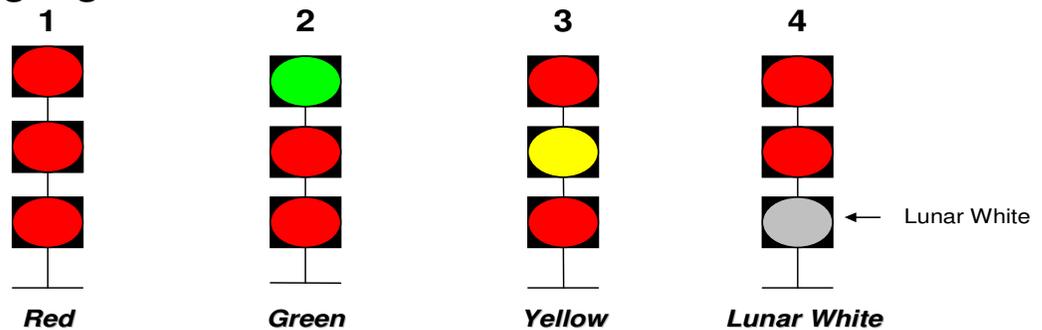
Proceed at Restricted Speed.



The name of the signal read from the top position down.
When RED is used with GREEN, YELLOW or LUNAR WHITE, RED is not considered because it contributes nothing to the name of signal. It remains lighted to let you know it is in working order and to show the relationship of the other lights- whether in top, second or third position.

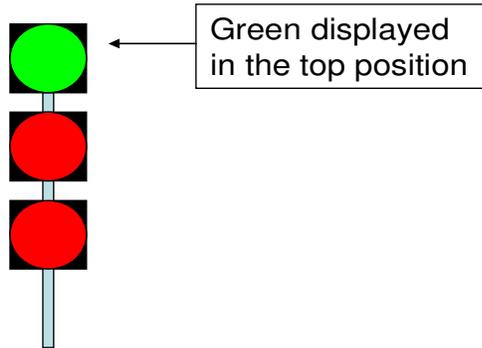
If it's not all RED, It's not read at all.

Name the colors considered first in calling the name of the following signals.



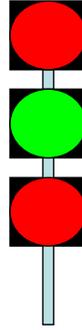
RULE 1281: CLEAR

Proceed



RULE 1283: MEDIUM CLEAR

Medium Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.



When green is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.

RULE 1281-C: LIMITED CLEAR

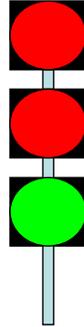
Limited Speed through turnouts,
crossovers, sidings, and over power-
operated switches; then proceed.



When the green is flashing in the middle position the signal is upgraded from Medium to LIMITED. Limited because the green is in the middle unit and flashing therefore upgrading the signal to limited and clear because the color is green.

RULE 1287: SLOW CLEAR

Slow Speed through turnouts,
crossovers, sidings, and over power-
operated switches; then proceed.

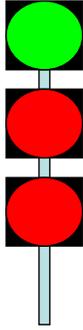


*When the green is displayed
in the bottom position the
signal becomes SLOW
CLEAR. Slow because the
green is in the bottom and
clear because the color is
green.*

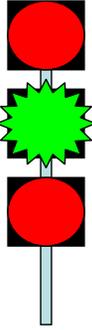
Signal Progression

Check your understanding on the following signals:

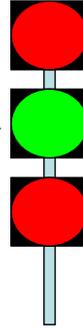
Rule 1281



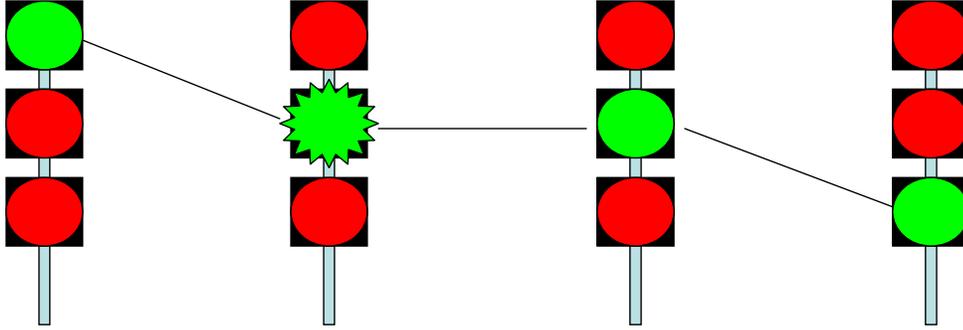
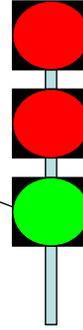
Rule 1281-C



Rule 1283

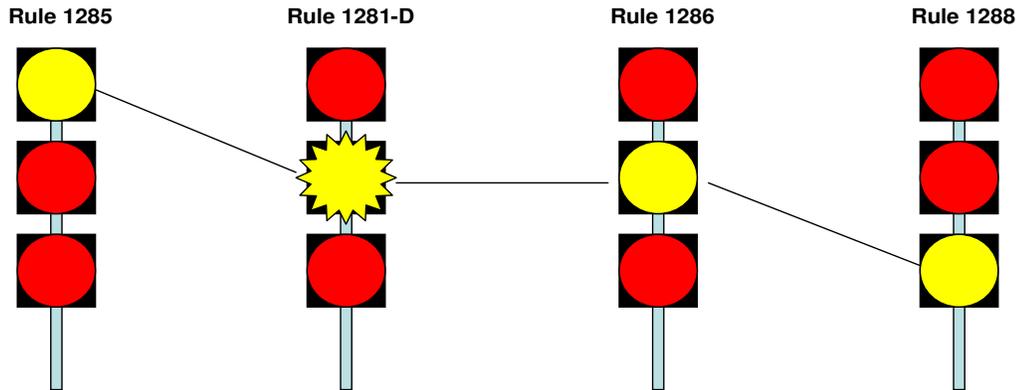


Rule 1287



Signal Progression

The logic you have learned also applies to Approach, Limited Approach, Medium Approach and Slow Approach. Check your understanding on the following signals:

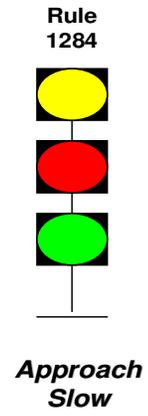
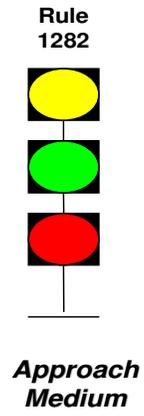
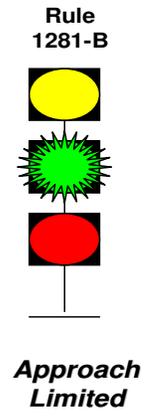
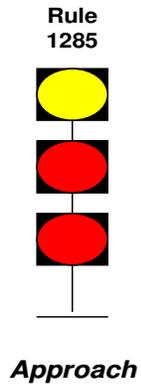


Review:

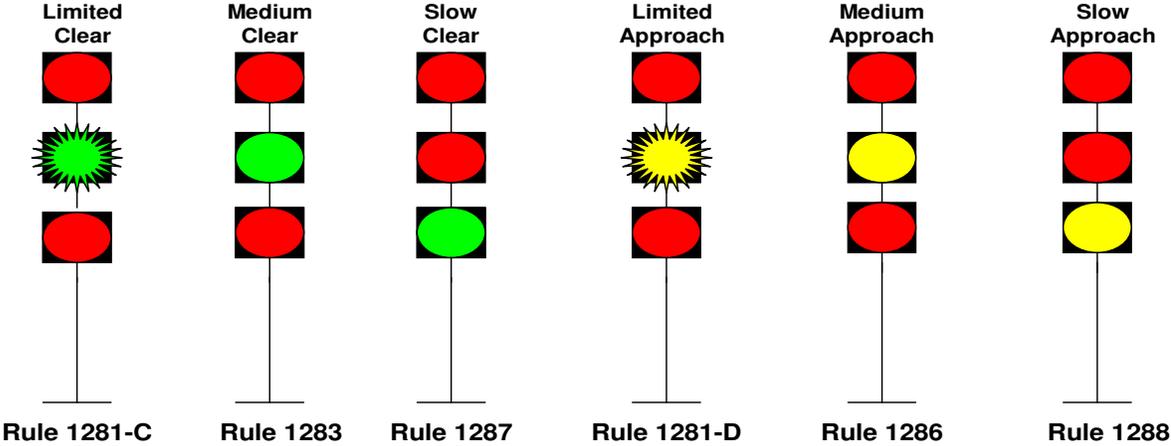
Let's review a few basic rules we have learned:

- ALWAYS READ FROM TOP UNIT DOWN
- A COLOR ON TOP GIVES BASIC INDICATION (Clear or Approach)
- A COLOR IN 2ND UNIT (Green or Yellow) INDICATES MEDIUM SPEED
- A COLOR FLASHING UPGRADES SIGNAL
- GREEN OR YELLOW IN 3RD UNIT INDICATES SLOW

Yellow in the top unit, the signal name begins with Approach.



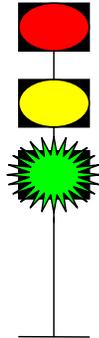
When the first color to be considered is in the middle unit or bottom unit, the speed in the name comes first.



Continued –

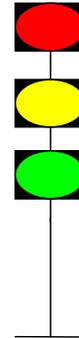
When the first color to be considered is in the middle unit or bottom unit, the speed in the name comes first.

**Medium Approach
Medium**



Rule 1283-A

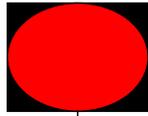
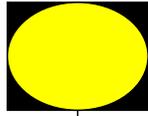
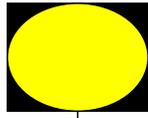
**Medium
Approach Slow**



Rule 1283-B

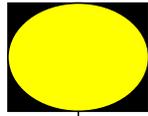
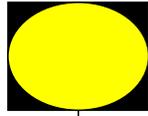
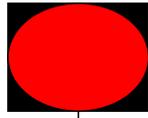
The signals below do not conform to the pattern we have learned.

Advanced Approach



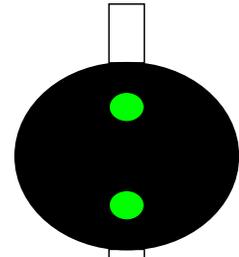
RULE 1282-A

Medium Advanced Approach



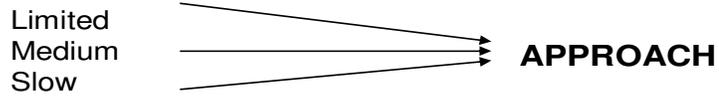
RULE 1283-C

Slow Approach Slow

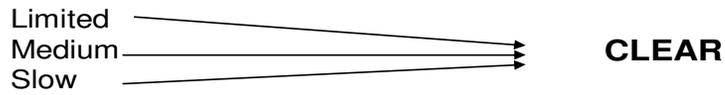


RULE 1287-A

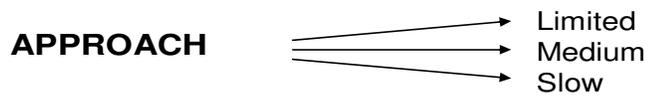
How To Read Signals:



Limited, Medium or Slow speed through turnouts, crossovers, sidings, and over power-operated switches; then Proceed, prepared to stop at the next signal.



Limited, Medium or Slow speed through turnouts, crossovers, sidings, and over power-operated switches; then Proceed .



Proceed, approaching next signal not exceeding limited, medium or slow speed

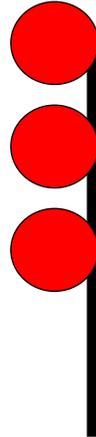
FORMER CONRAIL TERRITORY

Color Light Signals

SECTION 2

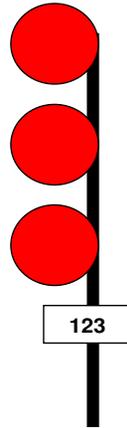
RULE CR-1292: STOP

The name of the signal displaying all red lights without a "G" marker or number plate is STOP.



RULE CR-1291: RESTRICTED PROCEED

The addition of a number plate in combination with red lights makes the signal **RESTRICTED PROCEED**.

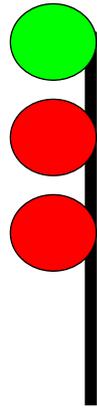


The name of the signal is read from the TOP POSITION DOWN.
When RED is used with GREEN or YELLOW, RED is not considered because it contributes nothing to the name of the signal. It remains lighted to let you know it is in working order and to show the relationship of the other lights whether in the top, middle or bottom positions.

In other words, ***If it's not ALL RED, then it's not Read at all.***

RULE CR-1281: CLEAR

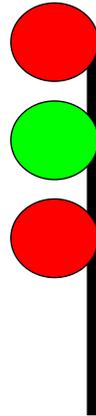
Proceed



Green displayed
over red lights
indicates CLEAR.

RULE CR-1283: MEDIUM CLEAR

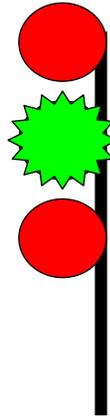
Proceed at Medium Speed until
entire train clears all switches,
then proceed.



When a color, green or yellow, is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.

RULE CR-1281-C: LIMITED CLEAR

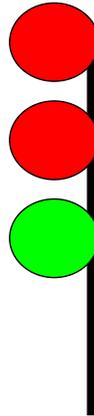
Proceed at Limited Speed until
entire train clears all switches,
then proceed.



When the green is flashing in the middle position the signal is upgraded from Medium to LIMITED. Limited because the green is in the middle unit and flashing therefore upgrading the signal to limited and clear because the color is green.

RULE CR-1287: SLOW CLEAR

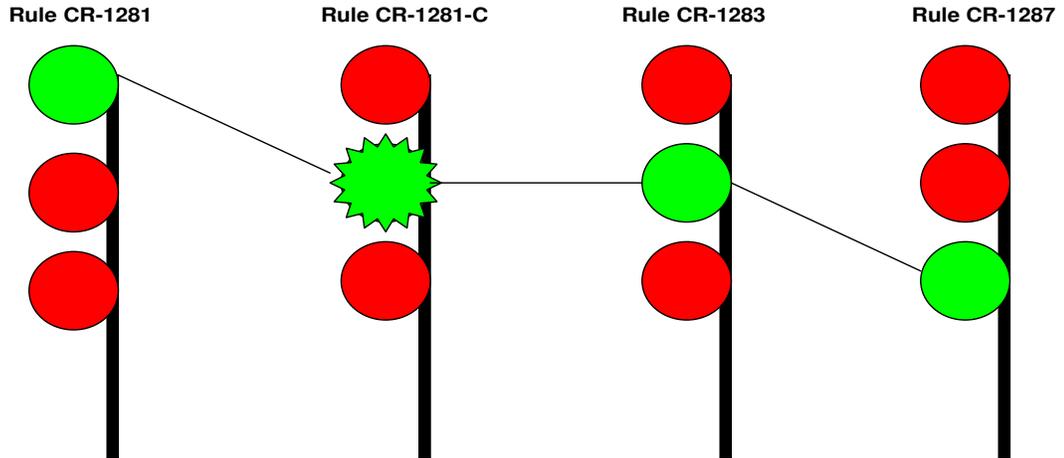
Proceed at Slow Speed until
entire train clears all switches,
then proceed.



*When the green is
displayed in the bottom
position the signal
becomes SLOW CLEAR.
Slow because the green
is in the bottom and clear
because the color is
green..*

Signal Progression

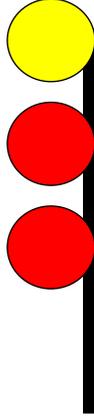
Check your understanding on the following signals:



Signal Progression

The same logic you have learned also applies to Approach and Medium Approach. Check your understanding on the following signals:

Rule CR-1285



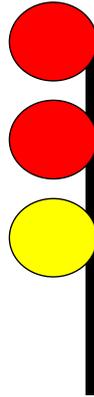
Rule Cr-1286



RULE CR-1290: RESTRICTING

Proceed at Restricted Speed until the train has cleared all switches and the leading wheels have:

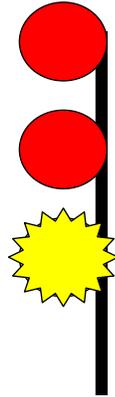
1. Passed a more favorable fixed signal, or
2. Entered non-signaled DCS territory



When the YELLOW moves to the bottom position, it loses its identity as APPROACH and becomes RESTRICTING. This signal does not conform to the logic we have learned.

RULE CR-1288: SLOW APPROACH

Proceed prepared to stop at next signal. Slow Speed applies until entire train clears switches, then Medium Speed applies.



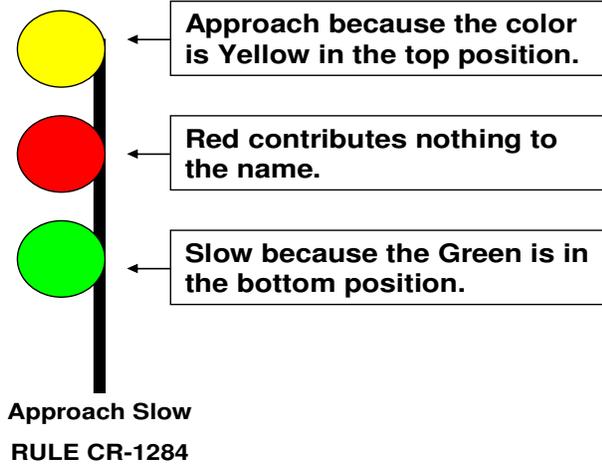
When Yellow is flashing in the bottom position this indicates SLOW APPROACH. This signal does not conform to the logic we have learned.

Before we look at the next group of signals, let's review a few of the basic rules we have learned.

1. The name of the signal indication is read from the top position down.
2. A Green or Yellow color in the top position gives the basic indication (Clear or Approach).
3. A Green or Yellow color in the middle position indicates Medium Speed.
4. A Flashing Green or Yellow color in the middle position indicates Limited Speed.
5. A Green in the bottom position indicates Slow Speed.
6. Red contributes nothing to the name unless ALL aspects are red. Remember, *"If it's not all Red then it's not Read at all."*

CONTRIBUTING COLORS

When Yellow and Green color lights are used in combination, they both contribute information to the signal such as in the following example:



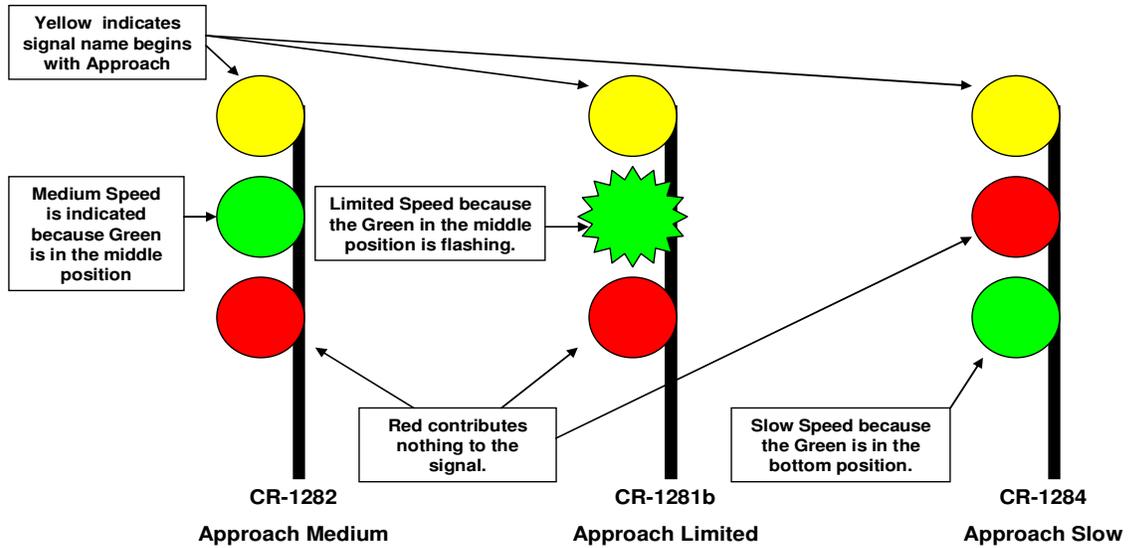
RULE CR-1284: APPROACH SLOW

Proceed approaching the next signal at Slow Speed. Trains exceeding Medium Speed must begin reduction to Medium Speed as soon as the engine passes the Approach signal.

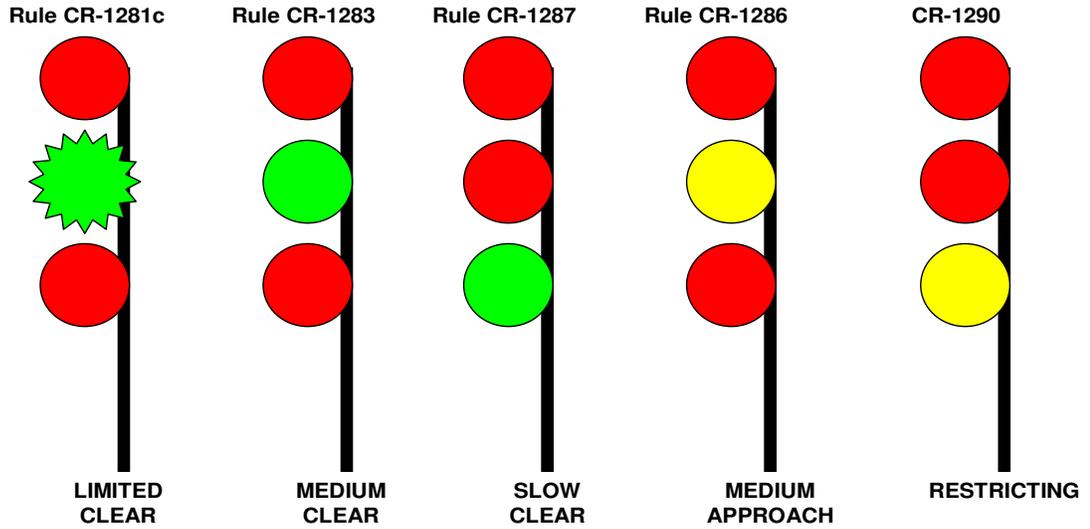


Other Approach Slow signals, such as this one, have Yellow over Yellow aspects that do not follow the logic we have learned.

Use the logic you learned previously on the following signals.

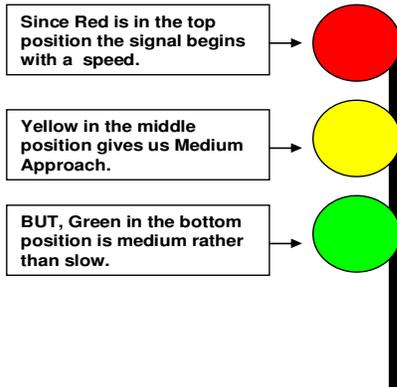


When RED is in the top position
the signal name begins with a
speed.



NONCONFORMING SIGNALS

The following signals do not follow the basic logic demonstrated in the preceding examples:



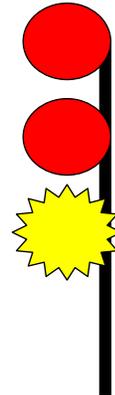
Since Red is in the top position the signal begins with a speed.

Yellow in the middle position gives us Medium Approach.

BUT, Green in the bottom position is medium rather than slow.

Rule CR-1283a

MEDIUM APPROACH MEDIUM



Since Red is in the top position the signal name begins with a speed.

Yellow flashing in the bottom position indicates slow.

Rule CR-1288

SLOW APPROACH

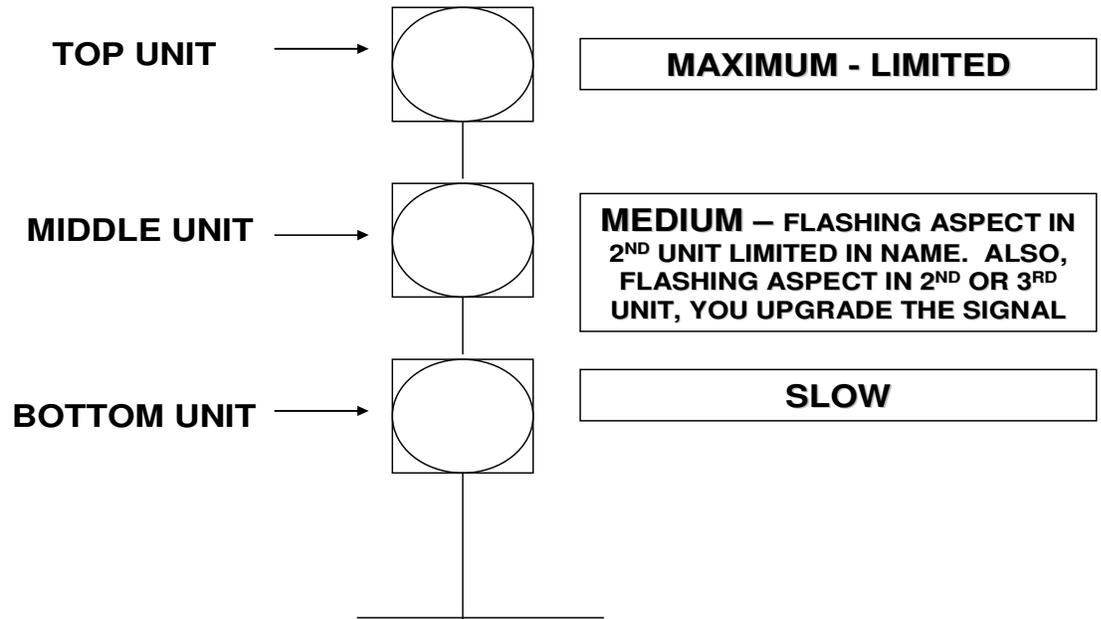
Former C & O Territory

Color Light Signals

SECTION 3

HOW TO READ SIGNAL

Always read from TOP DOWN



RULE C-1292: STOP

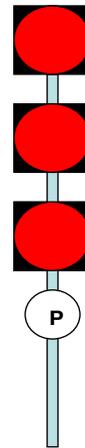
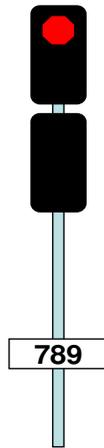
The name of the signal displaying all red lights without a “P” marker, “G” marker, or number plate is STOP.



RULE C-1291: RESTRICTED PROCEED

Proceed at Restricted Speed

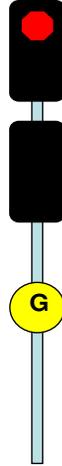
Restricted Speed – A speed that will permit stopping within $\frac{1}{2}$ the range of vision. It will also permit stopping short of a Train, a Car, an Obstruction, a Stop Signal, a Derail or an improperly lined switch. It must permit looking out for broken rail. It will not exceed 15 MPH.



The addition of a number plate or a "P" Marker with red lights indicates Restricted Proceed.

RULE C-1298: GRADE

Proceed at Restricted Speed.



Red lights in combination with a "G" marker.

RULE C-1281: CLEAR

Proceed



When Green is displayed in the top position the signal is Clear.

RULE C-1283: MEDIUM CLEAR

Medium Speed through turnouts, crossovers, sidings, and over power-operated switches; then proceed.



When Green is displayed in the middle position, it indicates medium speed. When the green moves from the top position to the middle position the name is MEDIUM CLEAR – medium because the green is in the middle position and clear because the color is green.

RULE C-1281-C: LIMITED CLEAR

Limited Speed through turnouts,
crossovers, sidings, and over power-
operated switches; then proceed.



*When the green is flashing
in the middle position the
signal is upgraded from
Medium to LIMITED.
Limited because the green
is in the middle unit and
flashing therefore
upgrading the signal to
limited and clear because
the color is green.*

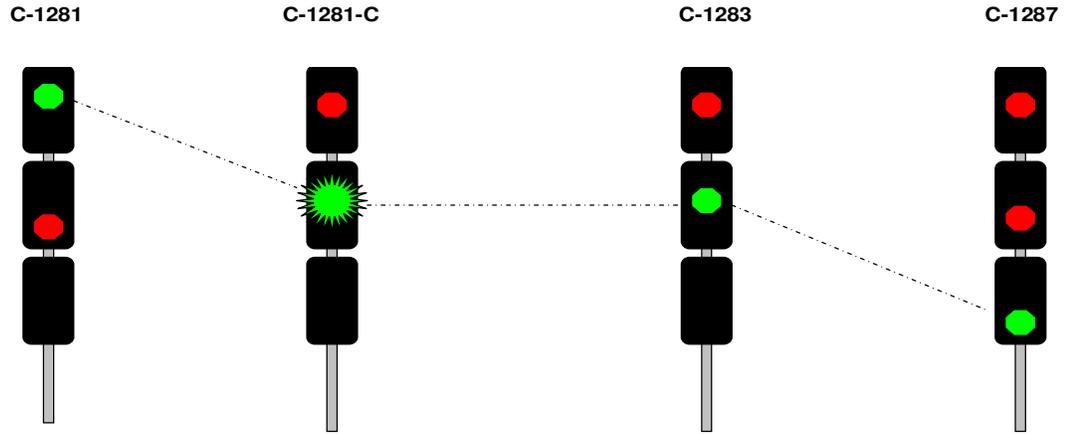
RULE C-1287: SLOW CLEAR

Slow Speed through turnouts,
crossovers, sidings, and over power-
operated switches; then proceed.



*When the green is
displayed in the bottom
position the signal
becomes SLOW CLEAR.
Slow because the green is
in the bottom and clear
because the color is green.*

Signal Progression



When Yellow is displayed in the top unit of the signal the signal name begins with Approach.

Approach



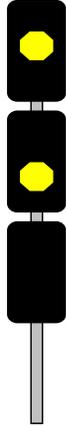
Approach Limited



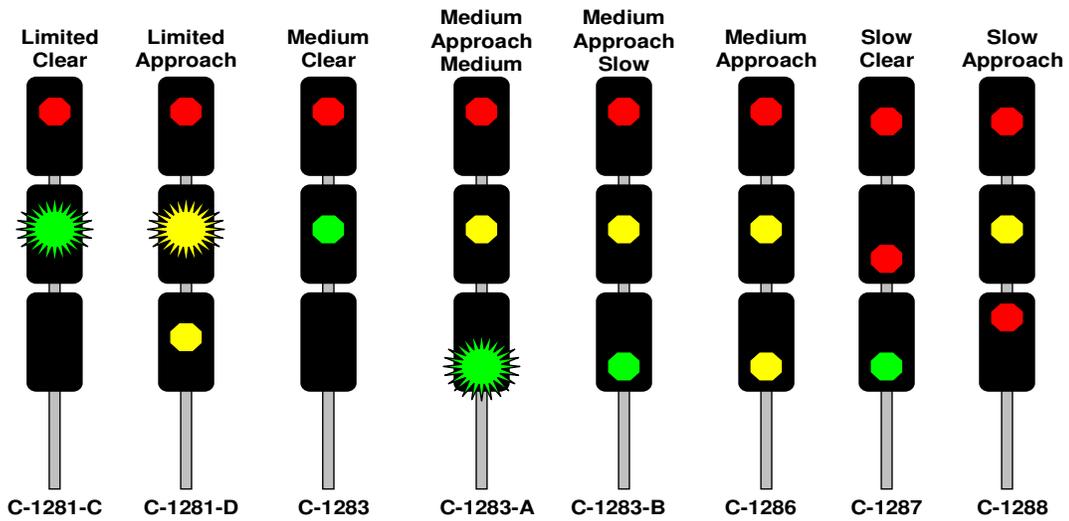
Approach Medium



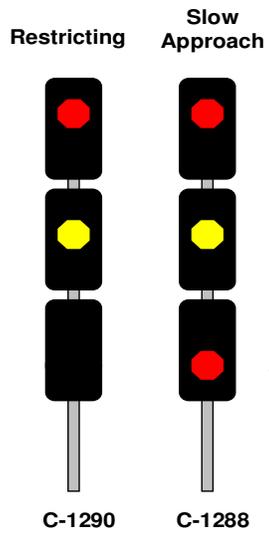
Approach Slow



When Red is displayed in the top unit of the signal the speed in the signal name comes first.



C-1290 C-1298



RESTRICTING- Proceed at restricted speed.

The addition of the red in the bottom unit upgrades the signal to SLOW APPROACH.

