1.1.13 Derail Protection of Cars in Storage Rev. 08/17

Cars in storage for more than 10 days will be protected with derail(s). Placement of these derail(s) will require all switches leading to the track to be spiked or clamped and tagged to remove them from service. Additionally, derails must be placed to prevent cars from rolling out of storage track. The Dispatcher will issue a Form C track bulletin to remove the track from service; track bulletins in effect for more than 72 hours will be moved to Superintendent Bulletin or Subdivision General Order.

A. Placement of Derail(s) on Controlled Sidings Rev. 10/14

The following instructions will be followed for the placement of derails when cars are placed in storage on controlled sidings:

1. Prior to installing derail(s), Manager Signal Maintenance (MSM) will contact the Manager Signal Design to determine proper method of disabling signals governing movement through the siding. Manager Signal Design will then confirm the disabling procedure in a lotus note to both the MSM and the Sr. Manager Signal Operations.
2. When contacted by MSM, SOC will contact the dispatch center to arrange for the issuance of a Form C track bulletin removing the siding from service. The Dispatcher or Control Operator will then place switch blocks on all dual-control siding switches.
3. The MSM will request SOC to open a ticket that will remain open until the signals are tested and returned to service.
4. After the disabling procedures and issuance of a Form C track bulletin have been confirmed, signal personnel will disable the signals.
5. Engineering personnel will spike or clamp and tag out-of-service all switches leading to or on the controlled siding.
6. Engineering personnel will place derail(s) 25 feet from the first and last car in the siding, in accordance with the instructions in the Engineering Track Maintenance Field Handbook.

B. Removal of Derail(s) on Controlled Sidings Rev. 08/17

The following instructions will be followed before cars that have been placed in storage on a controlled siding can be pulled from the siding:

1. Engineering personnel will remove the derail(s) if all cars are to be pulled from the siding. If cars will be returned or added to the track for storage, hinged or sliding derail(s) may be left fastened to the ties, in the open position, while the switching move is made. When cars left in the track or additional cars are added, the provisions of 1.1.13B. step 3 of this instruction does not apply.

2. Engineering personnel will pull spikes or remove point clamps and remove out-of-service tags on all switches.
3. Signal personnel will enable and test the signals then close the ticket through Signal Operations Center (SOC). SOC will then contact the Dispatcher to return track to service.

1.1.14 Solid State Wayside or Crossing Devices Rev. 08/17

A. Definition of Terms Rev. 08/17

Electro Static Discharge (ESD) – The discharge of a static electrical charge stored by a person. Walking over a vinyl floor may generate a static charge of 250 to 12,000 volts depending upon relative humidity. Lower humidity permits a higher static charge. ESD may damage electronic components

Chips – A common term used to describe an integrated circuit or microprocessor

Module – Card containing components and printed circuit wiring that may be removed from a box or chassis. A module may be plug or cable connected and is typically keyed to facilitate correct installation

EPROM – Erasable Programmable Read Only Memory

EEPROM – Electrically Erasable Programmable Read Only Memory (Flash ROM)

Checksum – The sum of a group of data items, used for verification of the EPROM/EEPROM contents

CRC – Cyclic Redundancy Check is a check performed on data to verify the EPROM/EEPROM contents and integrity

CDROM – Compact Disk Read Only Memory

Software – The detailed instructions to operate a computer. The term was created to differentiate instructions (program) from hardware

Application Software - List of instructions (program) designed or approved by Office of Signal Design for a specific location. This program identifies various inputs and outputs, and the same program may be used at various locations. The application software performs the following functions:

- Vital checks that were previously made through relay logic
- Defines any vital or non-vital outputs to conventional relay circuits
- Defines any vital or non-vital inputs from conventional relay circuits