

National Aeronautics and  
Space Administration

**Ames Research Center**  
Moffett Field, CA 94035-1000



## C<sup>3</sup>RS Alert Message Memo

The Confidential Close Call Reporting System (C<sup>3</sup>RS) is a partnership between the National Aeronautics and Space Administration (NASA) and the Federal Railroad Administration (FRA), in conjunction with participating railroad carriers and labor organizations. The program is designed to improve railroad safety by collecting and analyzing reports which describe unsafe conditions and events in the railroad industry. Employees are encouraged to report safety issues or "close calls" voluntarily and confidentially.

When C<sup>3</sup>RS receives a report(s) describing a hazardous situation - for example, a railroad system problem, a confusing procedure, or any other circumstance that might compromise safe operations - it will issue an Alert Message. Alert Messages have a single purpose: to relay safety information to individuals in a position of authority so that they can evaluate the safety information and take corrective action as needed. C<sup>3</sup>RS has no direct operational authority of its own. It acts through, and with, the cooperation of others. Alert Messages are classified as Alert Bulletins or For Your Information Notices and may be included in ad hoc C<sup>3</sup>RS Safety Teleconferences.

**Alert Bulletins** – Alert Bulletins (ABs) are utilized for significant or time-critical safety Issues.

**For Your Information Notices** – For less critical topics, For Your Information (FYI) Notices are issued.

**Safety Teleconferences** – C<sup>3</sup>RS will conduct Safety Teleconferences on an ad hoc basis between C<sup>3</sup>RS and others within the railroad community. These teleconferences alert appropriate personnel to safety issues identified in some selected C<sup>3</sup>RS Alert Messages by engaging in dialogue about the event(s) presented.

All Alert Messages are issued using de-identified information provided in the reports.

Sincerely,

A handwritten signature in blue ink that reads "B. Hooey".

Becky L. Hooey, Director (Acting)  
NASA Aviation Safety Reporting System  
NASA Confidential Close Call Reporting System

## About C<sup>3</sup>RS Reports & Alert Messages

### C<sup>3</sup>RS Report Records

The C<sup>3</sup>RS Expert Analysts provide the analysis for each report record in the C<sup>3</sup>RS Database. Information in a C<sup>3</sup>RS report record includes two types of information – fixed and text.

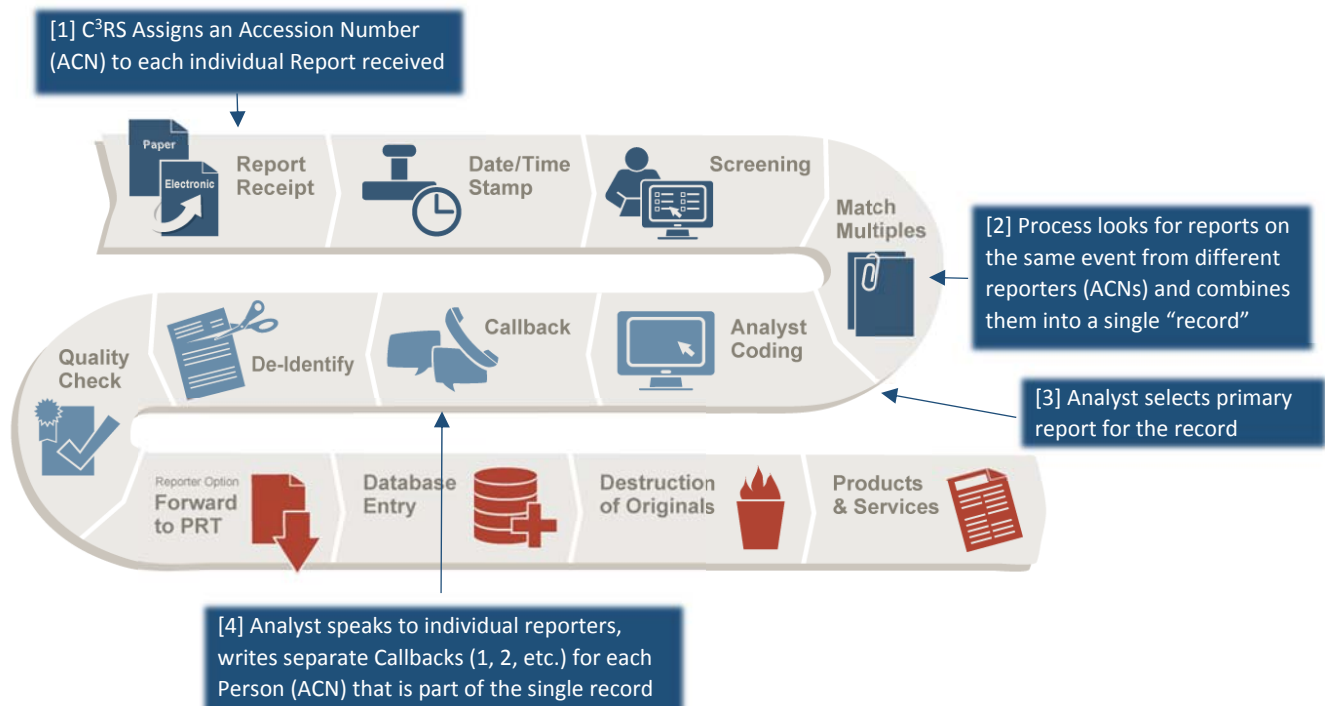
- **Fixed** fields contain information such as Types of Track Authority, Method of Operations, Speed Restrictions, etc.
- **Text** fields include the reporter's Narrative, Callback and Expert Analyst Synopsis.

### Multiple Reports

One of the great strengths of C<sup>3</sup>RS is the ability to combine information from multiple reports on the same event that provides each person's unique perspective, experience, background and knowledge. In a hypothetical example, a train arrives at a station with one or more of the cars off the platform and one of the crew opens the door. Reports may be received from the Engineer, the Conductor, and the Assistant Conductor; all who have been involved in or observed the event. In this example, C<sup>3</sup>RS could have three reports that describe the same incident. All reports are combined into a single database record. Each person who reported is coded in the report record by reference number (PERSON 1, 2, etc.). Every report to C<sup>3</sup>RS receives a unique Accession Numbers (ACN). Each person's narrative is entered as NARRATIVE 1, 2, etc. The C<sup>3</sup>RS Expert Analysts may perform a telephone callback to clarify or confirm information. A summary of the callback is written by the analysts and included in the CALLBACK 1, 2, etc. section of the report record.

### Alert Messages (Alert Bulletin & FYI Notices)

The ACN number presented on the Alert Message is the primary ACN in the single or multiple report records. Each Alert Message has a front-page introduction and relevant report records are attached. See the graphic below for a summary of the matching and C<sup>3</sup>RS report record processing steps.



# ALERT BULLETIN

AB 2018:3/1-1

6/06/2018

10657, 10194, 10110, 6068

TO: FRA-RRS

INFO: FRA-RCC, PRT, AAR, APTA, ARASA, ASLRRRA, ATDA, BLET, BMWED,  
BRS, IMAW, IBEW, NRC, NTSB, NYA, SLSI, SMART, TCU, VOLPE

FROM: Becky L. Hooey, Director (Acting)  
NASA Confidential Close Call Reporting System (C<sup>3</sup>RS)

SUBJ: Close Calls with Men and Equipment Fouling Track

We recently received C<sup>3</sup>RS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the following:

C<sup>3</sup>RS has received multiple reports regarding men and equipment in the foul of the right of way resulting in near misses or collisions. The following reports illustrate the potential problems.

(ACN 10657) A Conductor encountered track workers in the gauge of the rail after coming around a blind curve. The workers immediately jumped to safety.

(ACN 10194) A switch crew was spotting a car in a repair facility when the handhold railing of the switch engine struck the steps of a Track Mobile which was parked too close to the track.

(ACN 10110) A Conductor reported a concern regarding Yard Utility Vehicles regularly fouling the main track.

(ACN 6068) A Machinist and an Electrician were moving a cart on a narrow platform with poor lighting. As a locomotive approached, they had to jump from the cart. The cart was struck and damaged by the locomotive.

(Keywords: Collision, Fouling, Encounter)

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Becky Hooey at (408) 541-2854 or email at [Becky.L.Hooey@nasa.gov](mailto:Becky.L.Hooey@nasa.gov)



Confidential Close Call Reporting System  
P.O. Box 177 | Moffett Field, CA | 94035-0177



**REPORT CLASSIFICATION**

|                     |                    |
|---------------------|--------------------|
| Classification Type | Full Form Analysis |
|---------------------|--------------------|

**DATE / TIME**

|                    |             |
|--------------------|-------------|
| Date of Occurrence | 2018-01     |
| Local Time Of Day  | 1201 - 1800 |

**ENVIRONMENT**

|                  |          |
|------------------|----------|
| Weather          | Clear    |
| Natural Lighting | Daylight |

**TRAIN / EQUIPMENT A**

|                                       |                         |
|---------------------------------------|-------------------------|
| Operation Type                        | Passenger / Commuter    |
| Operation Type                        | Shoving                 |
| Passenger - Number of Cars            | 5                       |
| Passenger - Number of Cars in Service | 2                       |
| Main Track Configuration              | Multiple                |
| Train / Equipment Location            | Main Track              |
| Methods Of Operation                  | Automatic Block Signals |
| Train Activity at Time of Event       | Enroute                 |
| Track Authority                       | Dispatcher              |
| Maintenance Activity Involved         | Repair / Replace        |

**PERSON 1**

|                               |                                  |
|-------------------------------|----------------------------------|
| Accession Number              | 10657                            |
| Train Reference               | A                                |
| Craft                         | Transportation                   |
| Person Organization           | Carrier / Railroad               |
| Function                      | Conductor                        |
| Qualification                 | 218 Railroad Operating Practices |
| Certification                 | 242 Railroad Conductors          |
| Experience - Total (years)    | 11-20                            |
| Experience - In Craft (years) | 11-20                            |
| Crew Size                     | 3                                |

|                                  |                         |
|----------------------------------|-------------------------|
| Shift During Event               | Regular Start Time Job  |
| During Event - Hours Into Shift  | 1                       |
| Location                         | Train Car - Car         |
| Location                         | Cab Car Non Controlling |
| Job / Safety Briefings Completed | Yes                     |
| Human Factors                    | Communication Breakdown |
| Communication Breakdown - From   | Maintenance of Way      |
| Communication Breakdown - To     | Dispatch                |

## EVENTS

|                    |   |
|--------------------|---|
| Anomaly            | Encounter - Person / Animal                     |
| Anomaly            | On Track Protection Deviation - Track Occupancy |
| Anomaly            | Procedural Deviation - Operations Policy        |
| Detected by Person | Train Crew                                      |
| When Detected      | Enroute   |
| General Result     | Near Collision                                  |

## ASSESSMENTS

|                      |                          |
|----------------------|--------------------------|
| Contributing Factors | Human Factors            |
| Contributing Factors | Job / Safety Briefing    |
| Contributing Factors | Procedure                |
| Contributing Factors | Training / Qualification |
| Primary Problem      | Procedure                |

## NARRATIVE 1

Train departed Station X on time. We were shoving with the Dispatchers permission on a routine move to Station Y. We received a restricting indication at the Interlocking which is a blind curve. After making the curve, [I] observed 2 track workers sitting in the gauge working on a metal box. I blew the [proper whistle] warning and the workers immediately jumped out of the gauge and made their way to their crew. About 5 other workers were along the right of way, all with white safety helmets.

## CALLBACK 1

The reporter, a Conductor, added additional details about the event. The Conductor was working a regular assignment along with an Assistant Conductor who was in the body of the train and an Engineer who was alone in the cab of the locomotive. The Conductor was in the rear control car and was in control of the shoving move.

The crew was in the process of shoving their train one mile so they could pull into the other station. The territory is double track/ABS (Automatic Block Signals). The Conductor estimates the speed of the train was 18 MPH. The reporter suspects the workers were contractors who were stealing foul time as they had no authority to occupy the track as the train had a restricting signal. They encountered two workers in the gauge working on a PTC box with another three-four people next to the track on the side. The Conductor quickly blew the whistle and the workers left quickly. The reporter concluded by saying there was not a Foreman present to obtain Track Authority for the workers.

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## **SYNOPSIS**

A Conductor encountered track workers in the gauge of the rail after coming around a blind curve. The workers immediately jumped to safety.

**REPORT CLASSIFICATION**

|                     |                    |
|---------------------|--------------------|
| Classification Type | Full Form Analysis |
|---------------------|--------------------|

**DATE / TIME**

|                    |             |
|--------------------|-------------|
| Date of Occurrence | 2017-12     |
| Local Time Of Day  | 0001 - 0600 |

**ENVIRONMENT**

|                    |        |
|--------------------|--------|
| Weather            | Clear  |
| Weather            | Wind   |
| Natural Lighting   | Night  |
| Work Area Lighting | Medium |

**TRAIN / EQUIPMENT A**

|  |                           |
|--|---------------------------|
| Operation Type                           | Yard Assignment           |
| Operation Type                           | Shoving                   |
| Locomotives - Control Stand Type         | Standard                  |
| Locomotives - Total Head End Locomotives | 1                         |
| Locomotives - Number of Helpers          | 2                         |
| Passenger - Number of Cars               | 1                         |
| Passenger - Number of Cars in Service    | 0                         |
| Train / Equipment Location               | Yard                      |
| Train / Equipment Location               | Repair Facility           |
| Train / Equipment Location               | Shop                      |
| Methods Of Operation                     | Yard Limits               |
| Rules in Effect                          | Interlocking              |
| Train Activity at Time of Event          | Switching In Yard         |
| Communications Used                      | Non Verbal / Hand Signals |
| Communications Used                      | Radio                     |

**PERSON 1**

|                  |                |
|------------------|----------------|
| Accession Number | 10194          |
| Train Reference  | A              |
| Craft            | Transportation |

|                                  |                                  |
|----------------------------------|----------------------------------|
| Person Organization              | Carrier / Railroad               |
| Function                         | Conductor                        |
| Qualification                    | 218 Railroad Operating Practices |
| Certification                    | 242 Railroad Conductors          |
| Experience - Total (years)       | 6-10                             |
| Experience - In Craft (years)    | 6-10                             |
| Crew Size                        | 3                                |
| Shift During Event               | Regular Start Time Job           |
| During Event - Hours Into Shift  | 1                                |
| Location                         | Locomotive - Walkway / Steps     |
| Location                         | Shop                             |
| Job / Safety Briefings Completed | Yes                              |
| Human Factors                    | Communication Breakdown          |
| Human Factors                    | Situational Awareness            |
| Communication Breakdown - From   | Train Crew                       |
| Communication Breakdown - To     | Train Crew                       |

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## PERSON 2

|                                  |                                  |
|----------------------------------|----------------------------------|
| Accession Number                 | 10195                            |
| Train Reference                  | A                                |
| Craft                            | Transportation                   |
| Person Organization              | Carrier / Railroad               |
| Function                         | Assistant Conductor              |
| Qualification                    | 218 Railroad Operating Practices |
| Experience - Total (years)       | 3-5                              |
| Experience - In Craft (years)    | 3-5                              |
| Crew Size                        | 3                                |
| Shift During Event               | Regular Start Time Job           |
| During Event - Hours Into Shift  | 2                                |
| Location                         | Train Car - Vestibule            |
| Job / Safety Briefings Completed | No                               |
| Human Factors                    | Communication Breakdown          |
| Human Factors                    | Situational Awareness            |
| Communication Breakdown - From   | Train Crew                       |



**PERSON 3**

|                                  |  |
|----------------------------------|--|
| Accession Number                 | 10205                                    |
| Train Reference                  | A  |
| Craft                            | Mechanical                               |
| Person Organization              | Carrier / Railroad                       |
| Function                         | Machinist                                |
| Qualification                    | 218 Railroad Operating Practices         |
| Qualification                    | 229 Railroad Locomotive Safety Standards |
| Qualification                    | 232 Brake System Safety Standards        |
| Experience - Total (years)       | 6-10                                     |
| Experience - In Craft (years)    | 6-10                                     |
| Work Group Size                  | 10+                                      |
| Shift During Event               | Assigned Shift                           |
| Location                         | Shop                                     |
| Location                         | Adjacent To Track / On Ground            |
| Job / Safety Briefings Completed | Yes                                      |
| Human Factors                    | Situational Awareness                    |

**EVENTS**

|                    |   |
|--------------------|---|
| Anomaly            | Encounter - Vehicle                           |
| Anomaly            | Procedural Deviation - Operations Policy      |
| Anomaly            | Procedural Deviation - Mechanical Regulations |
| Detected by Person | Train Crew                                    |
| When Detected      | Switching Service                             |
| General Result     | Damage to Equipment / Facility                |
| General Result     | Requested Additional Authority                |
| General Result     | Requested Assistance / Clarification          |
| General Result     | Stopped Train / Equipment                     |

**ASSESSMENTS**

|                      |                      |
|----------------------|----------------------|
| Contributing Factors | Facility / Buildings |
| Contributing Factors | Human Factors        |

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**NARRATIVE 1**

[Our] crew was shoving a car on the end of the Yard into the Mechanical Facility to drop off a car. Brought the train inside the Maintenance Facility on the end of shop Track Y. A mechanical vehicle was an inch outside of the foul. I was on the point of the train car [which] cleared. However, the locomotive [handhold railing] for the cat walk was hanging out and struck the steps of the vehicle, damaging them. My Assistant Conductor noticed the incident and immediately stopped the move.

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**NARRATIVE 2**

It was [the] first move of the shift after arriving at the end of the Maintenance Facility with the yard diesel. We picked up one coach car in Track Y and the Conductor and Engineer took it past the switch. I lined the switch for Track X and walked ahead to open the door of the facility. The Conductor and Engineer shoved the car to the door of the facility. When I walked inside, I saw a piece of track equipment (railcar mover) the facility uses to re-position equipment they are working on. I noticed it was parked (on the concrete on tires, not on the rail) relatively close to our track but believed it was not in the foul. The Conductor was on the point of the equipment we were shoving. I stayed on the ground ahead and beside the car. The car did clear the equipment and when it came to a stop prior to being correctly spotted, I climbed up to get ready to secure it. I stepped inside the car only briefly and came back out to the vestibule when the movement started for the correct spot. That's when I noticed the equipment beside the track was moving. The handhold railing of the catwalk on the side of the engine compartment on the diesel, had caught on the steps of the maintenance equipment. I immediately went to the opposite side of the vestibule and stopped the movement with a hand signal to the Engineer.

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**NARRATIVE 3**

I got the Track Mobile from Track X, on one side of the drop table. It was parked on the left side of the track. The Track Mobile was inside the building. I used the Track Mobile to push a Motor in Track Z at XA:30. I pushed the motor inside the engine house. When I finished the move, I returned the Track Mobile to the exact same spot I got it from inside the building in Track X. This was the last time I used the Track Mobile. I was finished with the move by XA:45. I was told about the incident [the next morning] by phone. There were 2, 8 hour shifts between the time I used the Track Mobile and was notified about the incident. I am not certain I was the last person to use the Track Mobile. We were told not to park it outside when it is very cold but we do not have a designated area for the Track Mobile inside the building.

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**CALLBACK 1**

The reporter, a Conductor, provided additional information about the event. This was the second time working this assignment. The carrier moved both the Conductor and the Assistant Conductor from another assignment onto this yard job because they were short of crews. The Conductor was on the ground, preceding and protecting the one car shoving movement from the side that was opposite from the unoccupied Track Mobile (a

machine that is used to re-position rolling stock within the Mechanical Facility). The Engineer was alone in the cab of the yard diesel locomotive which was operating long hood forward. The Assistant Conductor was inside the car. The Conductor said he saw the unoccupied Track Mobile parked adjacent to the track inside the building. There were yellow lines painted on the concrete inside the building to indicate the foul boundaries of the track. The edge of the Track Mobile was slightly outside the edge of the foul marker. The car completely cleared, however the handhold railing of the locomotive struck the steps which caused dents in the steps of the Track Mobile and the handhold railing of the locomotive.

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### **CALLBACK 2**

The reporter, an Assistant Conductor (AC), offered supplementary specifics about the event. The AC explained the Engineer was regularly assigned. Both the Engineer and the Conductor were moved over from another position to work the assignment as they were short of crews. The Engineer was alone in the cab, the Conductor was on the point of the shove and the AC was on the opposite end between the locomotive and car next to the track. Before the move, the AC went in and opened the doors of the building and then went into the building through the bay door. The AC immediately noticed the Track Mobile and initially thought the Track Mobile was parked very close to the track but believed both pieces of rolling stock could make it by. The diesel locomotive did not. The handhold railing on the cat walk caught the steps of the Track Mobile. The Engineer was on the opposite side of the movement and had no visibility of the machine. After the coach car made it by the Track Mobile, the AC went inside the car. The AC saw the Track Mobile skid on the floor a few feet on its tires. The AC said the damage was very minimal. Mechanical Forces inspected the locomotive and ascertained it was safe for the crew to continue working with the same locomotive. In hindsight, the reporter said the crew should have had a job briefing. If it looked close, someone should have watched the entire movement. The reporter will in the future, stay focused on the task at hand.

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### **CALLBACK 3**

Unable to contact the reporter, a Machinist.

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### **SYNOPSIS**

A switch crew was spotting a car in a repair facility when the handhold railing of the switch engine struck the steps of a Track Mobile which was parked too close to the track.

# ACN 10110

## REPORT CLASSIFICATION

Classification Type Full Form Analysis

## DATE / TIME

Date of Occurrence 2017-12  
Local Time Of Day No Local Time Of Day Stated

## ENVIRONMENT

Weather Clear  
Natural Lighting Daylight

## TRAIN / EQUIPMENT A

Operation Type Passenger / Commuter  
Passenger - Number of Cars 8  
Equipment - Unspecified Off Track Equipment  
Train / Equipment Location Main Track  
Train Activity at Time of Event Switching In Yard

## PERSON 1

Accession Number 10110  
Train Reference A  
Craft Transportation  
Person Organization Carrier / Railroad  
Function Conductor  
Qualification 218 Railroad Operating Practices  
Certification 242 Railroad Conductors  
Experience - Total (years) 6-10  
Experience - In Craft (years) 6-10  
Shift During Event Regular Start Time Job  
Location Train Car - Car

## EVENTS

Anomaly Encounter - Vehicle  
Anomaly On Track Protection Deviation - Track Occupancy

|                    |  |
|--------------------|--|
| Anomaly            | Procedural Deviation - Operations Policy               |
| Anomaly            | Procedural Deviation - Company / Organizational Policy |
| Anomaly            | Safety Concern   |
| Detected by Person | Train Crew   |
| When Detected      | Switching Service                                      |
| General Result     | Unknown  |

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## ASSESSMENTS

|                      |                                 |
|----------------------|---------------------------------|
| Contributing Factors | Company / Organizational Policy |
| Primary Problem      | Company / Organizational Policy |

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## NARRATIVE 1

Yard Utility Vehicles were in the foul, over the rail and in the middle of the gauge by the station in its usual spot. Railroad Management continues to fail to do anything about this issue. A [report] could be filled out daily about this issue. It would be nice if [the Carrier] would finally tell the Yard Utility Vehicles to stay off the right of way instead of siding with them by doing nothing. As an Operations [employee], it is insulting this issue has gone on for as long as it has. Shows how little Management cares about issues effecting the railroad and its workers.

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## CALLBACK 1

Unable to contact the reporter, a Conductor.

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## SYNOPSIS

A Conductor reported a concern regarding Yard Utility Vehicles regularly fouling the main track.

**REPORT CLASSIFICATION**

|                     |                    |
|---------------------|--------------------|
| Classification Type | Full Form Analysis |
|---------------------|--------------------|

**DATE / TIME**

|                    |             |
|--------------------|-------------|
| Date of Occurrence | 2016-11     |
| Local Time Of Day  | 0601 - 1200 |

**ENVIRONMENT**

|                    |          |
|--------------------|----------|
| Weather            | Clear    |
| Natural Lighting   | Daylight |
| Work Area Lighting | Low      |

**TRAIN / EQUIPMENT A**

|  |                               |
|--|-------------------------------|
| Locomotives - Total Head End Locomotives | 1                             |
| Equipment - Unspecified                  | Off Track Equipment           |
| Train / Equipment Location               | Passenger Station             |
| Train Activity at Time of Event          | Enroute                       |
| Maintenance Activity Involved            | Inspection                    |
| Maintenance Activity Involved            | Operating Vehicle / Equipment |

**PERSON 1**

|                                 |  |
|---------------------------------|--|
| Accession Number                | 6068                                     |
| Train Reference                 | A  |
| Craft                           | Mechanical                               |
| Person Organization             | Carrier / Railroad                       |
| Function                        | Machinist                                |
| Qualification                   | 218 Railroad Operating Practices         |
| Qualification                   | 229 Railroad Locomotive Safety Standards |
| Qualification                   | 232 Brake System Safety Standards        |
| Experience - Total (years)      | 11-20                                    |
| Experience - In Craft (years)   | 11-20                                    |
| Work Group Size                 | 8  |
| Shift During Event              | Assigned Shift                           |
| During Event - Hours Into Shift | 2  |

|                                |                           |
|--------------------------------|---------------------------|
| Location                       | Station Platform          |
| Human Factors                  | Communication Breakdown   |
| Human Factors                  | Human - Machine Interface |
| Human Factors                  | Situational Awareness     |
| Communication Breakdown - From | Mechanical                |
| Communication Breakdown - To   | Train Crew                |

## EVENTS

|                                       |   |
|---------------------------------------|---|
| Anomaly                               | Encounter - Train / Equipment                 |
| Anomaly                               | Procedural Deviation - Mechanical Regulations |
| Anomaly                               | Safety Concern                                |
| Detected by Person                    | Mechanical                                    |
| When Detected                         | Maintenance                                   |
| Were Passengers Involved in the Event | No  |
| General Result                        | Damage to Equipment / Facility                |

## ASSESSMENTS

|                      |                                   |
|----------------------|-----------------------------------|
| Contributing Factors | Environment - Non Weather Related |
| Contributing Factors | Human Factors                     |
| Contributing Factors | Machinery / Tooling               |
| Contributing Factors | Station / Platform                |
| Primary Problem      | Human Factors                     |

## NARRATIVE 1

My Electrician and myself just completed inspection on Train A that was in Track X. We both climbed down and climbed in a golf cart with [a] welded on extension bar for a hose reel on front and also [a] platform on [the] rear for engine for pressure washer that was in between tracks. Train B was sitting in Track Y. The clearance and light makes it very hard to operate and maneuver. There is absolutely not enough space but had to attempt to get cart turned around. We started to pull forward and started a three point turn between the 2 tracks when Train A's locomotive bell started sounding. We yelled and yelled to inform the Engineer that we were trying to turn around in super low light and low clearance area on lower level. We jumped out and it hit cart. We are OK, but could have been killed. We are both very blessed to be here today. Super super close call. Carts for employees, red caps and luggage department have close calls on daily basis down there. Something has to be done because next time someone is not going to be as fortunate.

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## **CALLBACK 1**

The reporter, a Machinist, was working on a narrow passenger platform on a lower level with poor lighting even during the daytime. An Electrician was working with him. The cart they were using had been modified with an extension on both the front and the back. To turn the cart, a three-point turn was necessary but difficult. The machine had to cross the safety lines in order to make the turn. As a locomotive approached, they had to jump from the cart. The cart was struck and damaged by the locomotive. The reporter suggested that lighting be improved for the benefit of both the passengers and the employees. The reporter also suggested that the extensions to the cart be modified so that the cart is not as long and can turn with improved safety. They held a Job/Safety Briefing as they started work.

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## **SYNOPSIS**

A Machinist and an Electrician were moving a cart on a narrow platform with poor lighting. As a locomotive approached, they had to jump from the cart. The cart was struck and damaged by the locomotive.