

# Trail Cable Safety

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by

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Trail

Cable

Safety

***RESPECT TRAIL CABLES, IT COULD SAVE A LIFE, YOUR LIFE!***



# Trail Cable Focus

- CPOQRT

- Context:

- Someone will eventually get hurt if cables are not respected
    - High Cost each year from damage, abuse, and neglect

- Purpose:

- *RESPECT TRAIL CABLES, IT COULD SAVE A LIFE!*
    - *RESPECT TRAIL CABLES, IT COULD SAVE A JOB!*

- Quality:

- All supervisors, operators and maintainers must be educated in the dangers of trail cables and those that interact with trail cable must be trained in proper handling techniques.

- Quantity:

- Develop meaningful and insightful training materials
    - All required to attend a trail cable safety training
    - A training program must be developed on trail cable handling
    - The class shall be given to every person required to touch, cross, or approach a trail cable.

- Resources:

- Sufficient Budget and Worker Cooperation to Succeed

- Time:

- Began April 4, 2002
    - Complete as Soon As Possible





# Trail Cable Focus Groups

- **History**

- **1994 Focus Group**

- Resulted in Recommendations, not Procedures
    - No Buy-In from workers, supervisors, or general supervisors
    - Seen as a Maintenance Issue
    - Did not address the lack of respect for trail cables
    - Failed in educating workers in consequences
    - Learned a lot, but not much accomplished

- **2002 Focus Group**

- Recognized early the problems were the same as in 1994
    - Most of the solutions were the same as well
    - Needed champions from within
    - Still no respect, needed a "Shock" factor to get peoples attention
    - Once we had their attention, need solid procedures from which to work
    - Require education of all workers
    - Learn from others successes and mistakes
    - Needed to hold people accountable





# The Approach

## o Four Stages

1. Get Their Attention (Gain Respect First)
2. Develop Procedures/Obtain Useable and Safe Equipment
  - Cable Hook
  - Pothead Sled
  - Sling
  - Insulated Rope (3/8" Poly)
  - Hot Gloves
  - Cable Bun on Tumble Weed
3. Train & Follow-up Yearly (Group Members)
4. Hold Accountable





# Stage 1 - Getting Their Attention

- **The Docu-Drama Plot**

- Every day occurrences cause a disaster
- Workers that were preoccupied and not thinking commit unsafe acts that set a trap for the "Good Guy" (habits and behavior exhibited daily in the Mine)
- The "Good Guy" comes to work and gets zapped by the trap left by his "Buddies" on the previous shift
- It costs the "Good Guy" his life
- Shows the "Aftermath" of the event
- The message "This could happen to You" conveyed

**NOW - THE DOCU-DRAMA**





# Getting Their Attention

- **The Docu-Drama**

- Produced by the front line worker, to the front line worker
- The entire focus group gets a credit on this one
- The Focus Group feels this is realistic, and will get the attention of their co-workers
- Focus Group members are now believers
- The next task is to get everyone in the Mine to be believers



# Stage 2 - Developing Safe Procedures

- Consulted the 1994 Focus Group Recommendations
- Members visited PD Sieretta to observe handling
- Inquired about devices and procedures at WMEA
- Acquired Procedures from U.S. Borax (model)
- Used recommendations from high voltage safety trainer from National Technology Transfer (Trail Cable Handler Training)
- Input from Focus Group Members
- Procedures sent to Key Personnel for Comment
- Input from various vendors (slings, d-rings, etc)
- Group Member Came up with:

## The Five "Cable" Rules







# The Five “Cable” Rules

- 1. Consider All Trail Cables to be Energized*
- 2. Report All Damaged Trail Cables Immediately*
- 3. Never Connect a Rope Directly to the Trail Cable*
- 4. Always Use Proper Methods When Crossing Trail Cables*
- 5. Use Approved Procedures When Handling Cables & Potheads*





# Procedure Highlights

MODELED THE PROCEDURES AROUND:  
THE FIVE "CABLE" RULES

## 1. Consider All Trail Cables to be Energized

1.1 LOSS OF POWER ON A PIECE OF EQUIPMENT

## 2. Report All Damaged Trail Cables Immediately

2.1 INSPECTING TRAIL CABLES

## 3. Never Connect a Rope Directly to the Trail Cable

3.1 CABLE HANDLING

## 4. Always Use Proper Methods When Crossing Trail Cables

4.1 CABLE CROSSING PROCEDURES

4.2 PROCEDURES FOR BURYING TRAIL CABLES

## 5. Always Use Approved Procedures When Handling Trail Cables & Potheads

5.1 STORING TRAILCABLES

5.2 CABLE SLINGS

5.3 ADDING CABLES OR TAKING ONE OUT OF SERVICE

5.4 POTHEAD PROCEDURES

5.5 HANDLING CABLES WITH THE SHOVEL

5.6 CONTACT WITH TRAIL CABLES

5.7 PROPER USE OF CABLE HOOKS

5.8 PROTECTING THE TRAIL CABLES

5.9 CARE AND USE OF HOT GLOVES

5.10 CARE OF CABLES IN BLAST AREAS

5.11 USE OF BAD ORDER TAGS & TAPE ON B/O TRAIL CABLES





# Procedure Highlights

- o There are Eighteen Sections to the Procedures
- o The Five “Cable” Rules
  - Five rules to Help Remember the Dangers
  - Procedures revolve around the cable rules
  - **Loss of Power**
    - What to do
    - Who to call
  - **Inspection**
    - What to look for, what to do
  - **Handling**
    - Never pull more than 100 feet
    - Use the cable truck
    - Light vehicles only small amount
    - Use of heavy equipment to pull cable requires consulting a supervisor



# Procedure Highlights

- **Cable Crossings**
  - Must have on every truck that enters pit
  - Pick up with cable hook, short cable hook on every truck
  - Restricts size of vehicle
- **Burying Trail Cables**
  - NEC compliance
- **Storage**
  - Guidelines for setting up cable yard
  - What to do with good order & bad order cables
  - Cable repair requirements
- **Slings**
  - What to use still to be determined
  - Lay sling on ground, pull cable onto sling
  - Use a 3/8" poly rope, insulator and is water repellent
  - Use hot gloves
- **Adding or Eliminating Cables**
  - Uses new JSA and cable handler
  - References KUC Isolation Procedure
  - Addresses cable run over by Haul Truck or Heavy Equipment at a Shovel or Drill
  - Addresses cable run over by a Light Vehicle





# Procedure Highlights

- **Potheads**
  - Sawhorses
  - Allows a new pothead sled to be Used
- **Handling Cables with Shovels**
  - Tumbleweed
  - Connection
- **Contact w/ Trail Cables**
  - Direct handling not allowed
- **Proper use of Cable Hooks**
  - New cable hooks and bags
  - Solid fiberglass
  - Red Line to indicate 2 feet from the cable
  - Two lengths
  - Storage and care
- **Protecting the Trail Cable**
  - Issue raised by NTT instructor
  - Use of berms
  - Use of cones or other markers





# Procedure Highlights

- **Care and Use of Hot Gloves**
  - Testing (6 months) and responsibility
- **Care of Cables in Blast Area**
  - Protects from bank burying trail cable
  - Cable out of blast area
- **Use of Bad Order Tags & Tape on B/O Cables**
  - B/O tag and Procedure
  - B/O tape in case tag come off



# Stage 3 - Train & Follow-up Yearly

- **Training**
  - If you work in the Pit, you must receive cable hazard training
  - Will be done annually along with pit license training
- **The Five "Cable" Rules**
  - Five rules to identify w/ like "The Five Cardinal Rules"
- **Training Consists of:**
  - Viewing the Docu-Drama
  - Reviewing the "Cable Rules"
  - Reviewing the Trail Cable Training Video
  - Testing to verify understanding
  - Completion of MSHA 5000-23
- **Now – The Training Video**





# Stage 4 - Holding Employees Accountable

- Once employees have:
  - Viewed the Docu-Drama
  - Reviewed the "Cable Rules"
  - Reviewed the Trail Cable Training Video
  - Passed the Test to verify understanding
  - MSHA 5000-23 has been completed
- There should be no question on trail cable use, handling, and treatment
- If rules are then broken:
  - Progressive discipline will take place





# Where Next?

- **Purchase Needed Hardware**
  - Cable Hooks/Bags - Done
  - Pothead Sleds - Done
  - Slings - Done
  - Cable Buns - Done
  - Poly Rope - Done
- **Begin Training (August 19)**
  - Use Focus Group Members (Champions) - Yes
  - Team Training Using - Yes
    - ❖ Docu-Drama
    - ❖ Training video (needs some updating to fit procedures)
    - ❖ Slides of Procedures
    - ❖ Testimony of Champions
  - Assistance of Superintendents and/or Managers - Yes
    - ❖ Scheduling
    - ❖ Demonstrate Support
- **Conduct Training – In Progress**
- **Hold Everyone Involved Accountable**
- **Repeat Each Year on Pit License Renewal**
- **Share w/ other Rio Tinto Properties**





# Latest Development

- **Met with MSHA District Supervisor in September**
  - Explained Focus Group Concept and Make-up
  - Viewed the Docu-Drama
  - Viewed the Training video
  - Showed the Procedures
  - Reviewed the Trail Cable Training program
- **Positive Response from MSHA**
- **Appreciative of Keeping Them Informed**
- **A Great Step in Working Together to Keep the Work Place Safe**



# QUESTIONS?

