



# **Chevron Mining Inc.**

## **Safety and Health Management System Overview**

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# Chevron Mining Safety Management System

## □ OEMS

- Chevron Mining adapted Chevron's integrated management system to fit our mining specific needs
  - **Operational Excellence Management System** covers the management of safety, health, environment, reliability and efficiency

## □ Our OE Vision

- To be recognized and admired by industry and the communities in which we operate as world-class in safety, health, environment, reliability and efficiency

## □ Our OE Objectives **0 - 100 - 0**

- **0** – Incidents and Injuries
- **100** – Percent of Planned Production
- **0** – Citations/Violations/Spills

# Chevron Mining OE Management System

## □ The Operational Excellence Management System (OEMS) encompasses three distinct areas

- **Leadership Accountability**

- Leadership is the single largest factor for success in the development and implementation of OE

- **Management System Process (MSP)**

- The MSP provides a systematic approach to measure and drive to world-class performance

- **OE Expectations**

- 13 Elements define the basis for how work is performed



# Safety and Health Focused OE Elements

## □ **7 Elements have a major focus on safety and health**

- Element 1 – Security of Personnel and Assets
- Element 3 – Safe Operations
- Element 4 – Management of Change
- Element 6 – Contractor HES Management
- Element 9 – Incident Investigation
- Element 11 – Emergency Management
- Element 12 – Compliance Assurance

# The Other OE Elements

- ❑ **6 Elements have a focus on other aspects of the business, but also touch on safety and health**
  - Element 2 – Facilities Design and Construction
  - Element 5 – Reliability and Efficiency
  - Element 7 – Environmental Stewardship
  - Element 8 – Product Stewardship
  - Element 10 – Community Awareness and Outreach
  - Element 13 – Legislative and Regulatory Advocacy

# Safe Operations

## □ **Drilling down into Element 3 – Safe Operations, the following standard OE Processes are in place to safely manage work**

- Safe Work Practices
- Risk Management
- Job Safety Analysis
- Hazard Communications
- Motor Vehicle Safety
- Repetitive Stress Injury Prevention
- Behavior Based Safety
- Occupation Hygiene
- Fitness for Duty
- Training
- Document and Records Management

# Safe Work Practices

## ❑ **Drilling down into the Safe Work Practice Process the following standard safe work practices are in place to control how work is performed**

- Think Incident Free / Self Performed Safety Assessment
- Lockout - Tagout - Tryout
- Working at Heights
- Lifting and Rigging
- Manual Material Handling
- Excavation and Trenching
- Confined Space Entry
- Hot Work
- Electrical Safe Work
- Permit to Work / Simultaneous Operations

# Critical Safety Tools

- ❑ **Two critical safety tools are embedded into the management of safe work and support the OE Processes and Safe Work Practices**
  - **Tenets of Operation**
    - 10 things we always do to work safely
  - **Stop Work Authority**
    - The right to stop potential unsafe activities and behaviors without repercussion



# Tenets of Operation

□ **At Chevron Mining our work is guided by two key principles:**

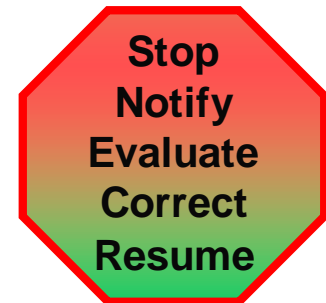
- ***Do it safely or not at all***
- ***There is always time to do it right***

## Tenets of Operation

1. Always operate within design or environmental limits
2. Always operate in a safe and controlled condition
3. Always ensure safety devices are in place and functioning
4. Always follow safe work practices and procedures
5. Always meet or exceed customer's requirements
6. Always maintain integrity of dedicated systems.
7. Always comply with all applicable rules and regulations
8. Always address abnormal conditions
9. Always follow written procedures for high risk or unusual situations
10. Always involve the right people in decisions that affect procedures and equipment

# Stop Work Authority

- ❑ The purpose of Stop Work Authority (SWA) is to immediately stop any unsafe activity or behavior that threatens the safety or health of the workforce, puts the environment in peril or could create an operational incident
  - Stop Work Authority establishes the “**Responsibility** and **Authority**” of any individual to stop work when an unsafe activity or behavior could result in an undesirable event
  - Stop Work Authority uses a **Stop, Notify, Evaluate, Correct** and **Resume** approach to prevent incidents and establish an Incident and Injury Free (IIF) culture
  - Stop Work Authority is an expression of the care and concern for and by the workforce
  - Stop Work Authority must be supported by everyone to be effective



# Stop Work Authority Card

- **The Stop Work Authority Card empowers all workers to apply the Tenets and Stop Work**

## Stop Work Authority

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It Is Your **RESPONSIBILITY** and You Have The **AUTHORITY**

**Your Ideas and Concerns are Important**

We **ALWAYS** comply with the Tenets of Operation shown on the reverse side of this card.

As an employee or contractor, you are **Responsible** and **Authorized** to stop any work that does not comply with the Tenets and there will be no repercussions to you.

**That is our commitment to you.**

**Chevron Mining Inc.**  
*Fred Nelson*, President

## Operational Excellence Tenets of Operation

**We Believe:**  
All incidents are preventable

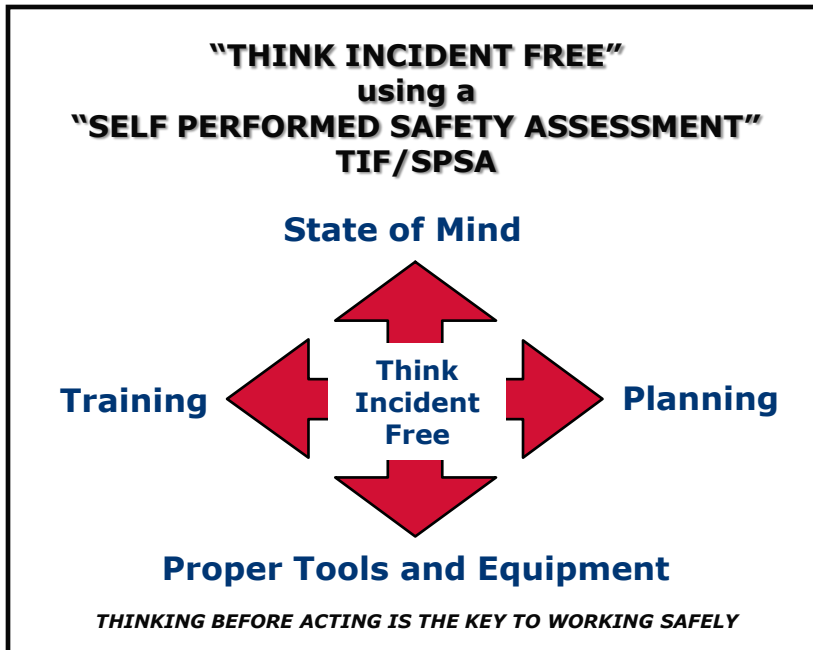
**Two Key Principles:**  
“DO IT SAFELY OR NOT AT ALL”  
“THERE IS ALWAYS TIME TO DO IT RIGHT”

**We Always:**

1. Operate within design or environmental limits.
2. Operate in a safe and controlled condition.
3. Ensure safety devices are in place and functioning.
4. Follow safe work practices and procedures.
5. Meet or exceed customer’s requirements.
6. Maintain integrity of dedicated systems.
7. Comply with all applicable rules and regulations.
8. Address abnormal conditions.
9. Follow written procedures for high risk or unusual situations.
10. Involve the right people in decisions that affect procedures and equipment.

# Think Incident Free (TIF) using the Self Performed Safety Assessment (SPSA)

- ❑ **The TIF/SPSA Safe Work Practice and Tool are designed for use before every task to assess risk and develop the safest approach to the work**



**THINK INCIDENT FREE (TIF)**

**Always use a Self Performed Safety Assessment (SPSA) before starting work**

A pre-task SPSA will help you focus on doing "Every Task, The Right Way, Every Time" by identifying and addressing potential safety hazards. The SPSA will also help you identify and correct MSHA citable conditions and environmental risks.

Instructions: Complete this form at the start of your shift and whenever you start a new task during the shift. Refer to the TIF/SPSA Flow Diagram and HAZ-ID reminder card.

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Location:** \_\_\_\_\_ **Task:** \_\_\_\_\_

**Is Task Non-Routine or High Risk?** If Yes, apply appropriate:  SWP  JSA  SOP

**1 - Planning:** *What hazards could hurt me? What am I going to do to address them? List JSAs, SWPs, SOPs HAZ-ID used: (If working as a Team, address the risks to all Team Members)*

<i>Potential Hazard</i>	<i>Critical Action to Address Potential Hazard</i>

**2 - Proper Tools & Equipment:** *What tools and equipment are needed?*

\_\_\_\_\_

**3 - Training:** *What training is required to safely perform the work? Am I trained?*

\_\_\_\_\_

**4 - State of Mind:** *Is my State of Mind focused to safely perform the work?*

\_\_\_\_\_

**Changes:** *List changes or adjustments you need to make during the task: (An MOC may be required if you plan to Create, Change or Modify a Task, Tool, Design or Process)*

\_\_\_\_\_

**Verification:** Supervisor \_\_\_\_\_

# Hazard Identification Tool

- **TIF/SPSA is supported by the Hazard Identification Tool which provides:**
  - A visual aid that helps workers focus on hazard recognition
  - A tool that identifies hazards based on energy source recognition
  - A simple method to complete daily tasks safely and reliably

- **Hazard Control Hierarchy**

- Remove the energy source
  - Prevent the energy release
  - Protect from the energy release
  - Use Stop Work Authority

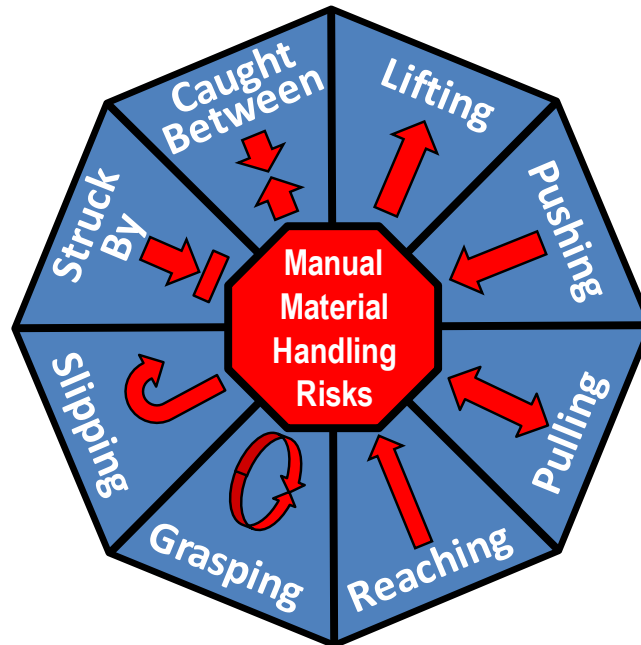


# Manual Material Handling (MMH) Tool

- The MMH Safe Work Practice and Tool supports TIF/SPSA and is designed for use before every task to assess and mitigate the MMH hazards

## MMH Hazards

- *Lifting*
- *Pushing*
- *Pulling*
- *Reaching*
- *Grasping*
- *Slipping*
- *Struck By*
- *Caught Between*



***Eliminate/Avoid Hazards***

***Reduce Hazards***

***Control Hazards***

# Element 12 – OE Compliance Assurance



## □ The OE Compliance Assurance Process is a critical piece of the management system

- Five levels of audits assess and assure compliance with OE and regulatory requirements
  - **Level 1 Audit** - A Chevron Corporate sponsored two week long audit conducted on a three year cycle
  - **Level 2 Audit** - An annual Self Assessment of OE performance to drive continuous improvement plans
  - **Level 3 Audit** - A Chevron Mining sponsored one week audit conducted on an annual cycle
  - **Level 4 & 5 Audits** - Mine sponsored audits that range from daily workplace inspections to monthly Union/Management Safety Committee inspections
- Audits are documented, actions developed and tracked

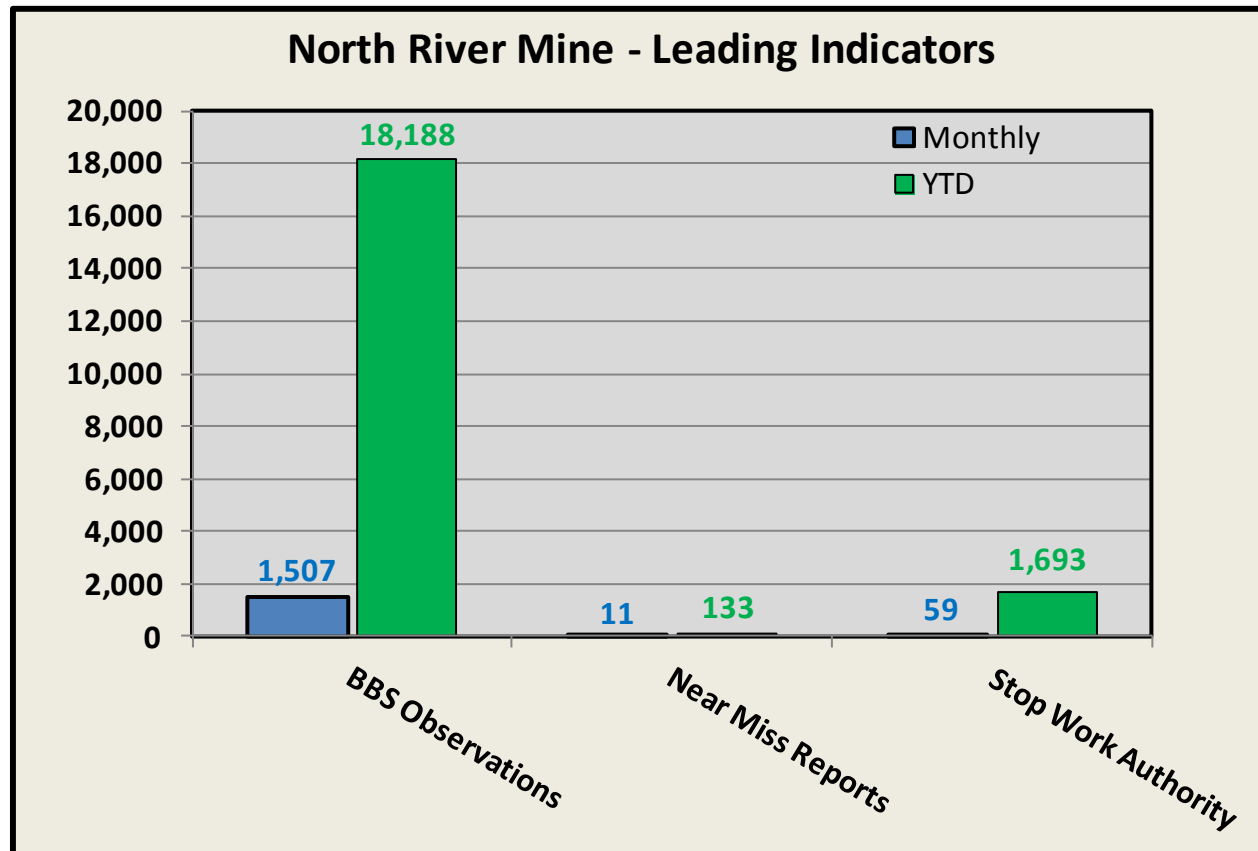
# Changing the “Mining Culture”

- ❑ **The historical Mining culture has been one of “Mining is dangerous and people will get hurt”**
  - All the processes and safe work practices in the world will not yield the desired results of an Incident and Injury Free (IIF) workplace unless the workforce buys-in and takes ownership
    - A concerted effort is underway to develop an IIF culture of “Care and Concern” for employee well being
    - This starts at the top of the organization and cuts across traditional boundaries of Union and Management to defuse the “them and us” mindset
    - Significant progress on cultural change has been made within Chevron Mining, however more work is needed and this effort never ends



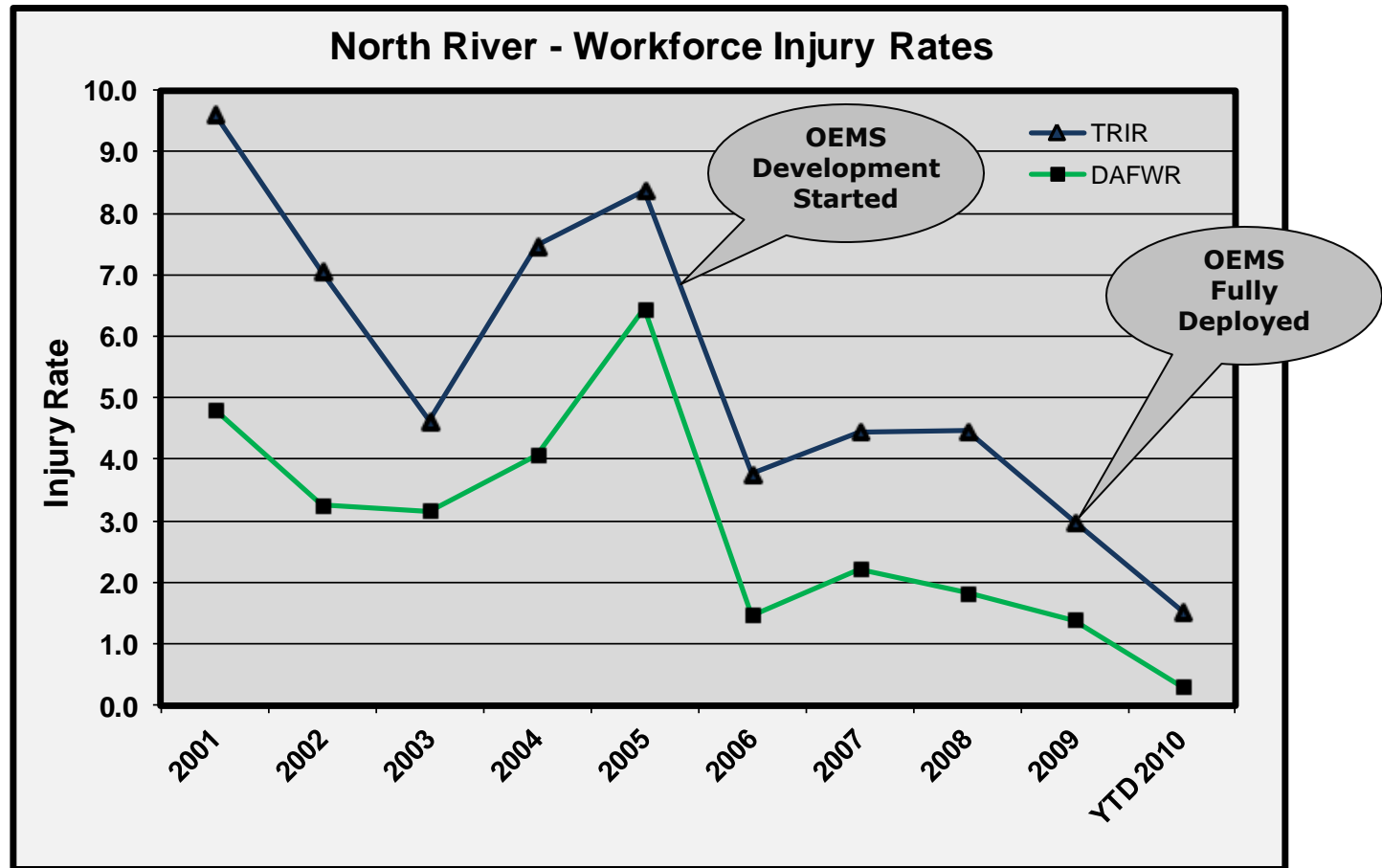
# Chevron Mining – North River Mine Leading Indicators – YTD August 2010

- **Behavior Based Safety (BBS) Observations, Near Miss Reporting** and **Stop Work Authority** use is tracked, reviewed and discussed monthly as key leading indicators



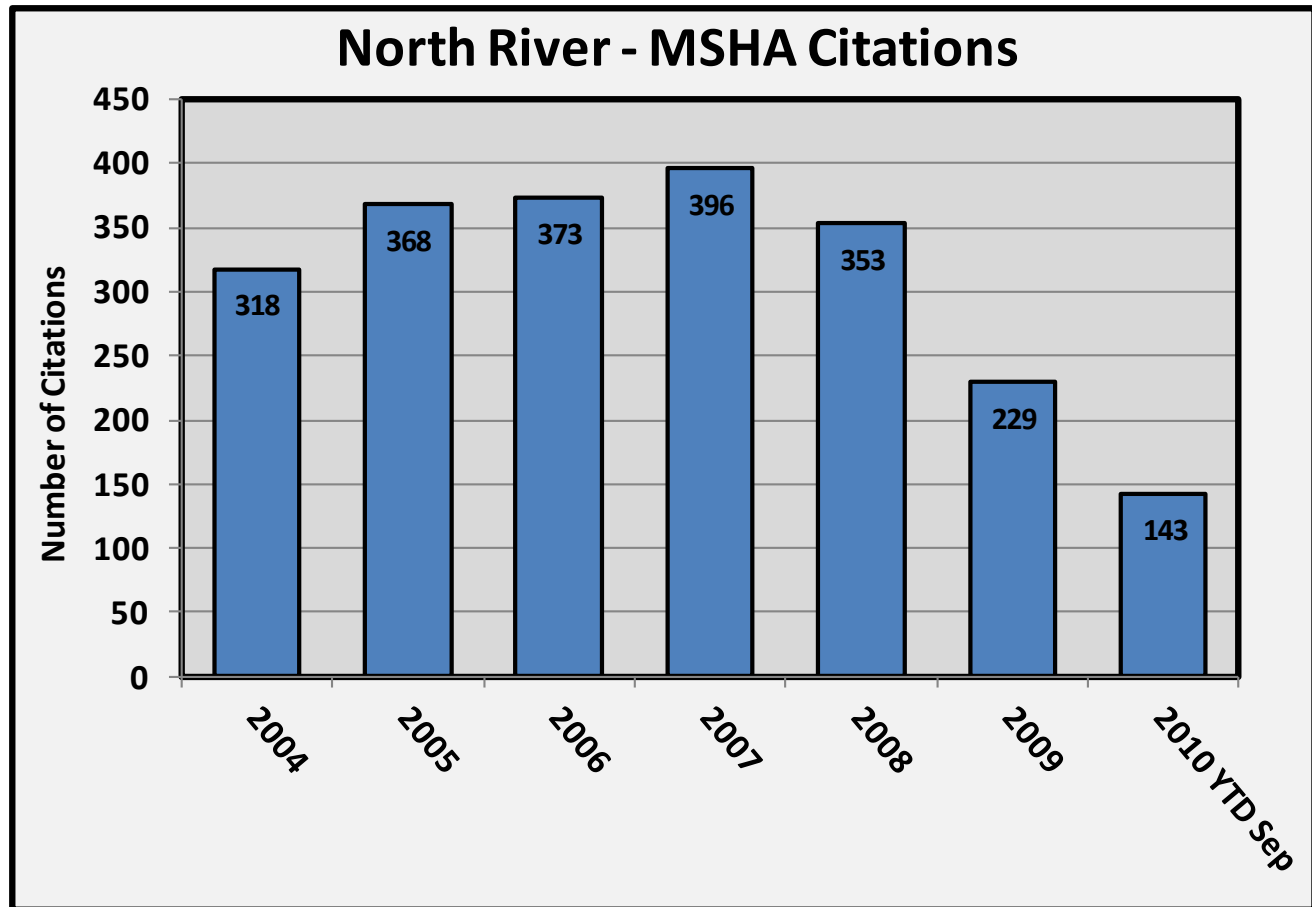
# Do Management Systems Work to Improve Safety Performance?

- The North River Underground Coal Mine has led Chevron Mining in OEMS deployment



# Do Management Systems Work to Improve Compliance Performance?

- The North River Underground Coal Mine has led Chevron Mining in OEMS deployment



# **Chevron Mining Safety Management System Summary**

- ❑ Safety management systems do yield results**
- ❑ All levels of the organization must commit in order to have an effective safety management system**
- ❑ An overall management system that integrates safety management is an effective way to manage your entire business**
- ❑ Seeing the results of a management system takes time**
- ❑ The organization must “stay the course” and make minor adjustments as you proceed**

**- - Questions - -**