



Florida Department of Transportation
FTSON Meeting
Accident Investigations & CAPs
August 2019



ACCIDENT INVESTIGATION INTRODUCTION

- Dean Kirkland-McMillan – CUTR
 - Background one
 - Two
 - Three
 - Four
 - Five



ACCIDENT INVESTIGATIONS

- Accident Incident Investigations required by 14-90.004 (5) F.A.C. Agency investigate, or cause to be investigated, any event involving a agency vehicle resulting in a fatality, injury, or property damage as follows:



ACCIDENT INVESTIGATIONS

- Fatality, where an individual is confirmed dead within 30 days of a agency vehicle transit system related event, excluding suicides and deaths from illnesses.
- Injuries requiring immediate medical attention away from the scene for two (2) or more individuals.



ACCIDENT INVESTIGATIONS (3)

- Property damage to agency vehicles, or other agency vehicle system property or facilities, or any other property that equals or exceeds \$1,000.00.



ACCIDENT INVESTIGATIONS (4)

- Evacuation of an agency vehicle due to a life safety event where there is an imminent danger to passengers on the agency vehicle, excluding evacuations due to operational issues.



ACCIDENT REPORTS

- Events are investigated and documented in a final written report that includes a description of the investigation activities, identified causal factors, and any identified corrective actions



ACCIDENT REPORT COMPONENTS

- Facts / Sequence of events
- Analysis
- Conclusions / Findings
- Recommendations
- Appendices



ACCIDENT REPORT COMPONENTS: FACTS

- Location of reportable event and/or hazard
- Injuries to persons
- Other damage
- Operator information
- Vehicle information
- Weather conditions



ACCIDENT REPORT COMPONENTS: FACTS

- Other environmental factors
- Fire
- Tests and research
- Other information



ACCI. REPORT COMPONENTS: ANALYSIS

- Are analytic methods and results identified?
- Does analysis support inferences and guide judgement?



ACCI. REPORT COMPONENTS: ANALYSIS

- Have facts, conditions, circumstances and inferences been properly review and evaluated?
- Were people, procedures, equipment, facilities and environmental factors considered in the analysis?



ACCI. REPORT: CONCLUSIONS / FINDINGS

- Are findings based on analysis of facts - what is known and unknown?
- (A conclusion unsupported by analysis should not be included.)
- Are probable cause and contributing factors identified?



ACCI. REPORT: RECOMMENDATIONS

- Are they feasible and supported by findings?
- Are they itemized/specific enough to facilitate corrective actions?



ACCI. REPORT: RECOMMENDATIONS 2)

- Are they directed toward correcting a particular area and assigned to specific individuals and/or departments for action?
- Do they establish specific target dates on a schedule for implementation or completion?



ACCIDENT REPORT COMPONENTS: APPENDICES

- Supporting documentation
- Drawings, photographs
- Interviews
- External reports
- Other relevant materials



ACCIDENT REPORT REVIEW APPROVAL

- FDOT reviews final reports based on above criteria.
- FDOT adopts final report or
- FDOT returns the final report to the agency for revisions.
- FDOT reviews revised report.



CAPS INTRODUCTION

- Anthony Ferraro – TRA, Inc.
 - FDOT SSO Program contractor
 - TRA Project Manager
 - 10th year with TRA
 - CUTR 1998-2009
 - USF MPH 1998



CAPS PORTION OVERVIEW

- CAP Fundamentals
- The Process
- Good CAP...Bad CAP...Not a CAP?!
- Roles & Expectations
- Important Terminology
- Improvements & Next Steps



CAP FUNDAMENTALS

- **A CAP is a GOOD THING!**
- Recognized & established process
- **Demonstrates agency commitment to improvements & enhancements**
- Sound method to document efforts
- Collaboration – Internal & External
- Compliance w/ SSPP & Program Std.



CAP FUNDAMENTALS

- **Agency staff buy-in is critical**
 - Trust the Process!
- A strong start is the **KEY to SUCCESS**
 - Only a well-written CAP will work
- Know your role
 - Interaction, collaboration, feedback
- All stakeholders have the same goal



CAP FUNDAMENTALS

- **Accountability**
 - Establish CAP leads early
- **Identify Alternates**
 - Staff may leave or move to other dept.
- **CAPs Log**
 - Living document
 - Recurring updates are important



CAP PROCESS OVERVIEW

1. Event Occurs
 - Audit, accident, hazard, other
2. Report issued / contains finding(s)
3. Development & Approval
 - **Only a well-written CAP will succeed!**
 - Oversight approval process:
 - Draft > review > discuss > revise > accept



CAP PROCESS OVERVIEW

4. Implementation & Tracking
 - Establish a realistic timeline
 - May or may not use milestones
 - DTPW Audits & Compliance tracks CAPs
5. Completion & Closure
 - Compile documentation & indicate CAP is completed
 - Provide to (FDOT) > closure verified



WHAT IS A FINDING?

A formal statement of concern issued as a result of an audit, investigation, or observation

- Activity/condition may create a safety hazard or vulnerability
and/or...
- Current practices found to be non-compliant with existing rule or policy



FINDING PRESENTATION

- **Deficiency and Area of Concern**
 - Formal CAP required
- **Observation**
 - Formal CAP not required, but should be reviewed
- Finding issued in a memo or report



SAMPLE FINDINGS

- **Deficiency** – “Numerous station emergency exits are corroded, not connected to alarms, or have alarms that have been turned off.”
- **Area of Concern** – “Agency does not *always* adhere to the formal CAPs development process in response to findings and recommendations.”



SAMPLE FINDING NOTES

- **A Finding ≠ a CAP**
- *A finding describes the condition, it **does not prescribe the remedy.***
- *However, audit findings may...*
 - contain a descriptive narrative and
 - suggest components of an acceptable CAP
- Use the narrative & recommendation as a *guideline* for developing the CAP
 - It is not intended as a strict directive



FINDING PRESENTATION

- Recommendations are basically SUGGESTIONS, not inflexible requirements
- Previous finding language (“Agency must do X, Y, Z...”) created confusion
- Going forward, clarify language:
 - *Agency must develop a formal CAP to address this finding. At a minimum, Agency should consider the following recommendations when developing a formal CAP to address this finding:*



SAMPLE FINDING RECOMMENDATIONS

- *Survey all station emergency exit doors and develop a list of those requiring repair.*
- *Replace all emergency exit doors that do not function as designed, and do not easily open and allow patrons to exit.*
- *Ensure all emergency exit doors are properly connected to the alarm system.*
- *Require station security guards to submit daily inspections defects to Safety more frequently than on a monthly basis.*
- *Perform quality control checks to ensure its contracted guards respond to activated emergency exit alarms.*

The recommendations are suggestions; they are not inflexible requirements!



WHEN YOU HAVE A FINDING...

- **OPPORTUNITY to design the remedy!**
- Start with recommendations & report narrative (available resources)
- Institutional expertise is invaluable – No one knows area better than you!
- Identify available internal & external resources & use them!



PROPER CAPS

...are achievable, measurable, assigned to an individual—not a department or office—and include a realistic target date for completion.

CAPs cannot merely be re-stated recommendations or findings



CRITICAL CAP COMPONENTS

1. Description of the deficient condition
2. Well-developed plan of action
 - **Must be MEASURABLE!**
3. Clearly stated goal / outcome
 - **Must be ACHIEVABLE!**
 - May or may not use milestones
4. Assigned individuals to implement
5. Completion date
 - **Must be REASONABLE!**



FORMAL CAP POLICES (STATE LOCAL)

- **FDOT SSO revised Program Standard, Sect. 10:**
 - Establishes CAP sources, elements, tracking, completion, & verification
- **Agency SSPP & Agency SOP:**
 - Internal agency SOP for CAP procedures
- **Agency & SSO review CAP materials monthly:**
 - Progress, closures, etc.



CAP MONTHLY REPORT *(FTA req'd)*

1. Finding reference identifier
2. CAP number
3. Originating finding
4. CAP details
5. Responsible person(s) / department(s)
6. Expected completion date
7. Approval / date of SSO approval
8. Actual completion date
9. SSO status & date closed (when applicable)
10. Issues preventing resolution
11. Monthly DTPW status comments
12. Monthly SSO/FDOT status comments



EXAMPLES: GOOD CAPS

- “Field Engineering **will** coordinate with Rail Services to analyze and evaluate returning the yard train speed back to 10 m.p.h.”
- “Facilities Maintenance **will** develop and implement a process to identify and track all work orders associated with PM Inspections.”



EXAMPLES: BAD CAPS

- “Review procedures associated w/ removing a train from service with Techs. 792 & 908.”
- “Create and issue bulletin reminding employees of the importance and review of this incident, communications of all incidents, no matter how minor.”
- “Install ECU units.”



EXAMPLES: NOT CAPS

- “Supervisors’ Daily Activity Reports contained a range of information and varied level of detail.”
- “Maintenance managers do not always conduct safety-critical tool and test equipment calibrations.”
- “The SSPP Safety Task Matrix does not list configuration management or identify organizational responsibilities for this element.”



OTHER CAP DETAILS:

- Can be simple or complex
- Can be one comprehensive CAP or several specific CAPs
- Can use milestones
- Responsible staff – 1, 2...or work group
- Developed based on recommendation
- ECD revisions upon staff request
- Monthly status reporting required



UTILIZE AVAILABLE RESOURCES

- Refer to audit report section, including finding narrative & recommendations list
- Do not over- or under-promise
- Utilize resources; do not over-extend
- Negotiate & revise CAPs language
- Request feedback & tech. support



OVERVIEW CAPS PROCESS ROLES

- Agency staff
 - Divisions
 - Contractors
- Agency Safety Office
 - Liaison b/w Agency staff & the SSO
- SSO
 - FDOT & technical consultant



AGENCY STAFF ROLE IN CAP PROCESS

- Review recommendations & findings
- **Determine feasibility**
 - Identify what can/can not be done
 - Offer alternatives, where necessary
- Design CAPs based on feasibility & available resources
- Provide draft CAPs to OSS



STAFF ROLE IN CAP PROCESS (2)

- Revise CAPs based on Safety Office review
- Continue revision process (as necessary) until approved by SSO
- Implement approved actions
- Provide monthly progress reports on CAP implementation to Safety Office



STAFF ROLE IN CAP PROCESS (3)

- Finalize CAP implementation
- Notify Safety that CAP is complete
- Provide appropriate documentation to Safety to demonstrate completion
- Respond to Safety requests for clarification / add'l information
- Maintain / sustain implementation



SAFETY OFFICE ROLE IN CAP PROCESS

- Conduct investigations, internal audits, hazard analyses, studies, etc.
- Issue findings & recommend actions
- Monitor CAPs implementation
- Prepare monthly CAPs status report & submit to FDOT (*5th of each month*)
- Respond to FDOT/SSO requests



SAFETY ROLE IN CAP PROCESS (2)

- Liaison b/w Agency divisions & FDOT
- Review Agency supporting documentation & provides feedback
- Submit CAP supporting docs to FDOT
- Recurring contact w/ SSO (calls, visits)
- Receive FDOT feedback and shares with appropriate Agency staff



FDOT/SSO ROLE IN CAP PROCESS

- Conduct audits & issue findings
- Make recommendations for action
- Review & approve CAP plans
- Monitor progress
- Review documentation / request additional materials, if necessary
- SME reviews; verify CAP closure



DISTINCT TERMINOLOGY

- “COMPLETED” CAPs are identified by staff w/ appropriate documentation
- Safety reviews documentation & submits to FDOT for review & closure
- **Only the SSO can officially “CLOSE” CAPs / “verify closure”**



TAKE-AWAYS NEXT STEPS

- CAPs are OPPORTUNITIES!
- Emphasize writing good CAPs
 - “A good throw makes a good catch”
 - A good CAP makes a streamlined process.
- Identify what can/can not be done
- Utilize resources & technical support
- Progress reporting & documentation
- Measurable, Achievable, Reasonable



TAKE-AWAYS NEXT STEPS (2)

- Develop appropriate CAPs to address findings & recommendations
- Revise existing items on CAPs matrix to meet “good CAP” criteria
- Revise matrix:
 - Include source finding



TAKE-AWAYS NEXT STEPS (3)

- Do not over-promise
- Identify ways to streamline the internal CAPs process:
 - Use a template
 - Follow a similar, proven process
 - Utilize FDOT technical assistance



Questions?

Thank you

