Investigation Process for Industrial Accident Scenes

By
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Abstract

Previously, I discussed the forensic gap in assessing civil industrial investigations. This gap could impede submission of company evidence into court proceedings.

Today I will present information to improve the presentation of information required to meet the standards required by civil, state, and federal courts. Today’s training will provide guidance in training procedures and will outline simple steps to process the industrial accident scene. This session will be assist industry in understanding the training needs and simple steps to assist the industrial investigators’ in securing scenes and collecting physical evidence. You will increase your confidence and proficiency in presenting evidence in a court of law.
Outline

• First steps
• Introduction
• Step wise approach to industrial scenes (checklist)
• Training
• Collection methods
• Evidence custody control
First Step

• Stabilize The Process.

• Help The Injured.

• Until Above Complete, All Other Steps Will Wait!
Introduction

Scenes are chaotic.

• Scene organized around Emergency Response, only.

• No command structure for Scene Investigation.

• Little or no organization for item collection.

• No training for investigator, except RCA.

• CSB can charge you for not handling your scene properly.
Checklist

1. Remember the site as you approach.
2. Attend and/or transport the injured from area.
3. Ensure the process is safe to enter.
4. Secure location (if possible).
5. Secure the witnesses.

*Keep Rubber Neckers And Media Away!*
Checklist, cont.

8. Establish the investigation command post.
9. Perform the initial contact with witnesses.
10. Record the vital information.
11. Request necessary information from the unit.
11. Do an initial walk-through of the scene.
12. Interview witnesses.
Checklist, cont.

11. Determine photographs to be taken.
12. Take photographs in defined order
13. Define evidence to be analyzed.
15. Create photograph log with descriptions of evidence and location found.
16. Gather equipment and information and return scene control to operations.
17. Properly store photographs, information and evidence collected.

18. Properly store photographs, information and evidence collected.

19. (Next day if not sooner) compile information, determine a crude timeline and send collected items to be analysis.

20. (Much later) finalize the timeline, determine root causes and file report.
Incident Worksheet

(COMPANY) (LOCATION)
INCIDENT WORKSHEET
(Working Notes NOT FOR SUBMITTAL)

<table>
<thead>
<tr>
<th>Incident Site or #</th>
<th>Process Name</th>
<th>Unit Name</th>
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</table>

Investigator Name and Title: __________________________________________

Date: ___/___/20___ Time: ___ : ___ AM □ /PM □

Weather conditions: Temp: ______ Wind Speed: ______ Direction: ______
Weather Description: __________________________________________

**TYPE OF INCIDENT:** □ Unknown, □ PSM, □ Process, □ EHS, □ Other

**Injury:** □ Unknown, □ First Aid, □ Recordable, □ Lost Time, □ Other

**Area Breakdown:** □ Unit A, □ Unit B, □ Unit C, □ Unit D, □ Other

**Contractor:** □ #1, □ #2, □ Other

Incident Scene Investigation Checklist

**NOTE:** REMEMBER THE SITE AS YOU APPROACH
**NOTE:** HELP AND/OR TRANSPORT THE INJURED FROM AREA

- □ Secure control of process to safe operational point
- □ Secure location (If Possible) by roping or taping off or placement of security at location
- □ Secure the witnesses (including emergency response personnel, when through with emergency) and separately to
Training

• Several training classes listed on the web

• Investigator needs
  – Crowd control
  – Interview (interrogation)
  – Photograph / drawing
  – Custody transfer plan
  – Evidence collection
  – Testimony / media training
Crowd Control

- Define limits of incident.
- Limit damage to scene – evidence and people.
- Limit the “Talking”.
- Understand the Chain of Command.
  - You are in charge until you are done.
  - Only your team in the area.
  - Limit open communication.
Interview (Interrogation)

- Protect the witnesses memory.
- Information can be more valuable than a piece of evidence.
- Understand the needs of the person.
  - They are not criminals.
  - If threatened, no free communication.
- You need to lead the communication.
- Remember ERT and EMT were there first.
Interview Suggestions

- Capture the spoken statement.
  - Tape recorder
  - Scribe
- Ask one question at a time.
- One questioner at a time.
- Ask for any clarifications to items.
- Complete events in chronological order and descriptions.
- Make sure that your question has been answered.
Interview Suggestions, cont.

- Avoid certain questions that can be just answered Yes or No.
- Avoid leading questions.
- Rephrase questions.
- Ask both specific and general questions.
- Try indirect questions.
- Be thorough in your questioning.
- Do not let witnesses to rewrite their statements.
- All witnesses must sign their statements.
Witness Can Supply

- Sounds/Odors/Tastes
- Colors of smoke and flame
- Placement of equipment or pieces
- How anything was moved
- What has been cleaned
- Document!
## Collection Log

- **Item Collection Sheet**

### INCIDENT ITEM COLLECTION SHEET

<table>
<thead>
<tr>
<th>LINE #</th>
<th>ITEM #</th>
<th>TIME</th>
<th>ITEM DESCRIPTION (USE MULTIPLE LINES IF NEEDED)</th>
<th>LOCATION COLLECTED</th>
<th>COLLECTED BY (Print Name)</th>
<th>NOTES</th>
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Photograph / Drawing

“A photograph is worth a thousand words”

• Understanding of basic photograph
  – Numerous classes at camera stores (4/8 hrs.)
  – Framing / focus / light
  – Photo log

• Digital format vs. Film
Photograph / Drawing, cont.

• Draw the scene as a backup.
  – Good for court presentation
  – Good for testimony

• Use
  – Plot plans, NOT ERP, AEC, equipment plans
  – Satellite photos

• Locate Important Points
  – Photographs
  – Evidence
  – People
# Photo Log

## PHOTOGRAPH LOG

*One per Photographer*

<table>
<thead>
<tr>
<th>LINE #</th>
<th>PHOTO #</th>
<th>IMAGE TIME &amp; DATE</th>
<th>ITEM OR LOCATION # (Use extra lines as needed)</th>
<th>NOTES</th>
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Photo Log, cont.

- Photographer Incident Image Data Sheet - Example

(COMPANY) (LOCATION)

Photographer Incident Image Data Sheet
(EACH PHOTOGRAPHER SUBMITS A DATA SHEET WITH PHOTOGRAPH LOG)

Incident # or Description: ________________________________

Incident Date: ___/___/____

Photographer Name & Initials: ____________________________________________

Image Custody Receiver Name & Initials: _________________________________

Image Archiver Name & Initials: _________________________________________

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<th>INITIAL MEDIA</th>
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<td>Photographs by (Signature): ________________________________</td>
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<tr>
<td>Date: <em><strong>/</strong></em>/____ Time Taken: ______ (AM) (PM) Camera Used: _________</td>
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<tr>
<td>Weather Conditions: ____________________________________________</td>
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</table>
Custody Transfer Plan

- Need to define and train before any event.
- One item, one package
- One scene, one box
  - Use several boxes
  - Box according to analysis need
- Supplies
  - Biological – sterile!
  - Chemical – clean and unused
  - Physical – clean and unused
  - Packages – clean and unused
  - Available and ready
- Practice
Evidence Storage

- Limit personnel to control locker access
- Limit access
- Log sheet for any movement of items
- Remember storage could be for years.
- “Original” photograph images in locker.
- Personnel can testify to locker controls.
## Custody Log

- Custody Transfer Sheet - Example

### (COMPANY) (LOCATION)
**INCIDENT ITEM CUSTODY TRANSFER SHEET**

<table>
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<th>LINE #</th>
<th>ITEM</th>
<th>RECEIVED ON (Date)</th>
<th>SUBMITTED BY (Print Name AND Initial)</th>
<th>RECEIVED BY (Print Name AND Initial)</th>
<th>LOCATION</th>
<th>SECURED ON (Date)</th>
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Incident # & Description

Incident Date / / PAGE ONE OF

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Keith V. Farrell; INVISTA, Orange Plant
Incident Steps for Industry Accident Scenes; Slide 24
Evidence Collection

• What do I need to collect?

• Talk to witnesses, first.

• Define the scene.

• Speculation of events
  – Understand what is important.
  – Understand what is not important.
  – Limit time at scene.
Evidence collection

• What to protect?

• One item, one package

• Biological
  – Needs to breathe, paper, loose
  – Label as biological

• Chemical
  – Seal as you would a sample of the process.

• Physical
  – Protect the surface.
Evidence Collection, cont.

- Ready to use
- Packaging
  - Loss
  - Protect from contamination
  - Sealing
  - Identifying
  - Initialing
Evidence Collection, cont.

- Documentations
- Statements
- Photographs
  - With or without labeled markers
  - Mark on drawings where photographs taken.
- Drawings
- Items of interest
Evidence collection, cont.

Biological (breathes or goes bad)

- My view is that biological evidence will not often be collected at industrial scenes.
- Blood tubes – EMT or medical staff only
- Sterile cotton thread, sterile cotton swabs
- Let stains dry.
- Paper package dried stains and seal container.
- Seal, label and document.
Evidence Collection, cont.

Chemical

- Sample as if a process sample.

- All items used to sample
  - Clean
  - Unused

- Seal, label and document.
Evidence Collection, cont.

Physical

• Edges
• Sides
• Protection for surfaces
• Soft and rigid
• Seal, label and document.
Testimony

• Final step
  – All OR Nothing
  – Preparation

• Concerns
  – Predicate questions
  – Voir dire
  – Direct
  – Cross
Predicate Questions

PREDICATE QUESTIONS

1. What is your name?
2. Where do you work?
3. How long?
4. What is your title within the company?
5. What are your functions within the company?
6. Have you had similar positions or functions with other companies or agencies?
7. Which one?
8. How long with each?
9. What does a ________ do?
10. What is your formal education?
Thanks

INVISTA

Mary Kay O’Connor
Process Safety Center

Dr. M. Sam Mannan
Questions