

ACCIDENT INVESTIGATIONS

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POLICY AND SCOPE

It is the policy of E Light to investigate all accidents and incidents which are work related or related to the construction programs which result in personal injury, illness, damage to property, or equipment, as a result of an accident or natural phenomena. The Supervisors will have the responsibility to investigate all accidents, provide all information outlined below, and submit to the Director of Education and Loss Prevention. The Director of Education and Loss Prevention shall be responsible for managing the distribution of reports, gathering, and analyzing data and managing post-accident follow ups. Exception: Solar Sites and Large Projects with a Dedicated Safety Staff: The Safety Manager will be responsible for Accident Investigations and Reporting with the cooperation of the site management. All accident investigations and reports shall be reported to site management team as soon as the situation is reported, and the site management team shall be briefed consistently throughout the investigation and briefed at the conclusion of the investigation.

PURPOSE

An effective loss prevention program must have a thorough accident / incident investigation program. The accident investigation program must insure:

- All accidents / incidents are reported and investigated immediately.
- The contributory and root causes of an accident are determined.
- The recurrence of accidents / incidents of a similar nature are reduced or eliminated.
- Program needs for each area are identified.
- Information for analysis and communication throughout the company and to clients is obtained.
- Compensation claims costs are managed in the most cost-effective manner.
- Production time is increased.
- All areas are in compliance with Federal, State, and local codes, rules and regulations and laws.

DEFINITIONS

- **Accident:** An undesired event that caused harm or damage to people property, process, materials, or environment.
- **Incident:** An undesired event, which, under slightly different circumstances could of, resulted in harm to people or damage to property, process, materials, or environment.
- **Contributory Causes (Causal):** The events, circumstance or items that contributed to the accident or incident. It is possible to have multiple contributory causes.

- **Root Cause:** The one circumstance, process, or item which was the cause of the accident or incident. There can be only one root cause. The Incident Accident Report Form contains a final section to analyze the Root Cause.
- **Safety/Loss Control:** The control of accidental loss (proactively and reactively) to people, equipment, materials, and environment. Control comes in several ways, the control prior to, proactive (things done not to have an accident) and then reactive what to do to control the outcome (after the accident) of the accident in order to minimize loss. i.e. first aid, CPR, Medical Providers, and Modified Duty, the Accident reports to name a few.
- **Property Damage:** Loss or damage to any property (equipment, tools, real property, vehicles, loss to process, etc.) owned by E Light, Customers or its Sub-contractors, resulting from accident, abuse, negligence, act of God, or normal wear and usage.

WHAT TO INVESTIGATE

All accidents and incidents:

- All work-related injuries and occupational illnesses
- All OSHA recordable cases
- Lost time injuries and illnesses
- Fatalities
- All property damage and auto accidents
- Fires and explosions
- Hazardous substance discharges and spills
- All incidents (Near Misses, Close Calls)
- All safety concerns, suggestions, or Good Catches reports by employees

WHO SHOULD INVESTIGATE AND REPORT

All accidents and incidents are to be reported immediately to the Supervisor. Failure to report an incident, regardless of the severity, may result in disciplinary action and could potentially affect the employee's benefits as determined by the Workers Compensation Carrier.

The Supervisor is required to investigate all items which occur within his/her area of responsibility. The Supervisor will complete an accident / incident report form for all accidents/incidents utilizing the designated iAuditor template. All reports are to be emailed to the Education and Loss Prevention Coordinator. A preliminary report must be filed within 8 hours of the incident. A final report must be filed within 24 hours of the incident. The Safety Manager is responsible for all accident investigations on projects with a full time Safety Manager on site.

Even though he may not be the only investigator, the Supervisor must be actively involved because:

- He/she is responsible for the people, equipment, material, and environment of his/her work area.
- He/she knows those particular employees best and how to communicate with them.
- He/she most likely will be the one to implement follow-up actions.
- He/she will be responsible for communicating back to their employee's causes and corrective actions.
- He/she will be responsible for offering and tracking modified duty.

The Supervisor will immediately report all suspected incidents by calling the Director of Education and Loss Prevention. This call should be made first unless immediate emergency services are required. If immediate emergency services are required, call 911 first, then immediately call the Director of Education and Loss Prevention. The Director of Education and Loss Prevention shall be responsible for managing the notification of all other personnel.

INSTRUCTIONS

1. Determine incident type (see matrix below)
2. Make the initial telephone notifications (911) if appropriate.
3. Start investigation and control the scene 3a. Designate someone to take notes for you.
4. Contact or transport to nearest medical providers if needed.
5. Complete accident investigation reports with iAuditor
6. Submit Incident Reports w/iAuditor.
7. Offer modified duty and track modified duty.
8. Forward copies of paperwork, reports, etc. to main office

REQUIRED DOCUMENTATION OR NOTIFICATION	CONTACTS
A. Notification given Immediately.	1. Immediate supervisor/ Director of Safety and Loss Prevention

B.	Accident report completed within 24 hrs.	2. Superintendent/Project Manager
C.	Log on OSHA 300 form	3. Human Resources Notified
D.	Police Report required.	4. Insurance Company Notified
E.	Doctors Release or 1st report needed.	5. Vice President Notified
F.	OSHA notified @ 1-800-321-OSHA	6. President Notified
INCIDENT TYPE		REPORTING AND TIME FRAMES
First Aid/No Doctor		A+1+B
First Aid / Doctor		A+B+1+3+4
Medical treatment given		A+B+1+2+3+4
Restrictions given		A+B+C+E+1+2+3+4+5
Days away from work		A+B+C+1+2+3+4+5
Death		A+B+F+1+2+3+4+5+6
Fire		A+B+ (? D)+1+2+3+4
Vehicle accident		A+B+D+1+2+3+4
Property Damage		A+B+1+2+3+4 (>\$2500+5) (>\$5000+6)
Theft		A+B+1 (>\$1500+2) (>\$2500+5)(>\$5000+6)
Spill/ Release Non reportable		A+B+1
Spill/ Release Reportable		A+B+1+2
Incident (Near Miss/Close Call)		A+B+1

STEPS IN INVESTIGATIONS

1. Start the investigation promptly and positively.
 - a. Take charge of the situation
 - b. Insure first aid and call for Emergency services.
 - c. Control potential secondary accidents.
 - d. Direct someone to take notes and be sure to denote key times, events, observations, arrival of personnel, witness names, participants names, notification times, and any other details which may be pertinent.
2. Collect pertinent information about the incident.

- a. Identify sources of evidence.
 - b. What appears to have happened?
 - c. What tools, equipment, material, or people are missing?
 - d. What things failed or malfunctioned?
 - e. What do you need to know about training, repair, maintenance etc?
 - f. Preserve evidence from alteration or removal.
 - g. Interview all witnesses.
 - h. Take pictures frequently either directly through iAuditor or into your Pictures Gallery for insertion into iAuditor later.
3. Analyze all contributory causes.
 - a. First identify the Loss to People, Property or Process.
 - b. Identify the immediate causes.
 - c. Identify the basic causes.
 - d. Identify any program deficiencies.
 - e. Identify any safety or policy violations.
 - f. Identify any deliberate behavior.
 4. Develop procedures and take remedial actions.
 - a. Determine and implement any immediate procedures to prevent further incidents.
 - b. Determine and implement any immediate remedial actions that are required.
 - c. Cooperate with Safety Department to implement any long-term procedural changes or remedial actions required.

All information gathered during the investigation should be documented with pictures and with detailed, factual information and submitted to the Education and Loss Prevention Coordinator utilizing the following iAuditor Designated Templates:

- Accident: Preliminary Report- To be used as a preliminary report only
- Accident: First Aid ONLY Report- To be used only for First Aid Only incidents
- Accident: Full Accident Report- To be used for all accidents involving injuries or property damage
- Accident: Investigation Supplementary Report
- Operations: Theft Report

Follow through on the effectiveness of the actions. The Director of Education and Loss Prevention shall be responsible for managing the tracking of incidents and the follow up of corrective actions and the management of cases.

Here are some tips and guidelines to keep in mind when conducting an investigation.

- In order to stop the accident from happening again conduct a thorough investigation, get all the facts.
- Spend time determining the contributing and root causes (root causes).
 - Ask Why at **least** five times. Use the system you used when you were young and really wanted to learn everything. You would ask your parents a question. They would give an answer and you would then ask them Why? And you would continue this until you received an answer that satisfied you. Use this process to get to the root cause of the issue, not one of the symptoms.
 - Determine if the root cause is a company problem or employee problem. (Many times, it a company problem, sometimes it is an employee problem).
 - Be honest to yourself and the company. Follow up with remedial actions and do not allow it to happen again.
- Take pictures. Take pictures. Take pictures.
- Use the voice recorder on your smart phone to record the testimony of witnesses. This is typically more effective than getting written statements.
- When you are writing your reports do not attempt to sound official or use fancy language. Just write what happened and share the facts.

ACCIDENT / INCIDENT FOLLOW-UP PROCEDURES

Follow-up action is required on all preventative measures stated on an accident / incident investigation report, if not corrected at the time of the initial investigation. The Director of Education and Loss Prevention shall be responsible for follow up. The department Director, the Project Manager and supervision shall cooperate and assist the Director of Education and Loss Prevention in the follow up and implementation of corrective actions.

Use the following as a guideline for determining the schedule for implementing corrective actions:

The schedule by which the preventative action should be corrected in order to prevent the accident / incident from occurring again will be according to its loss severity potential:

- **Class A - Major**Within 24 hours
- **Class B - Serious**.....Within one week
- **Class C - Minor**.....Within two weeks
- **Imminent Danger must be corrected as soon as possible!**

The Supervisor will be responsible for monitoring the effects of the corrective action.

Each member of supervision on site shall conduct a STOP Action Observation of the work affected by the corrective action once per week for a period of two weeks. The STOP Action report shall be emailed to Director of Education and Loss Prevention upon completion for review. This is necessary in order to verify that the corrective action has solved the problems identified in the original accident / incident reports and has caused no unanticipated side effects.

If the corrective action has not solved the problem or an undesirable side effect is observed, the operations team shall meet with the Director of Education and Loss Prevention and determine a course of action.

WRITING THE INVESTIGATION REPORT

The report summarizes the investigation and maintains a record on how the problem was solved. All injuries, illnesses, property damage accident / incidents and near misses should be recorded on the above reference iAuditor Templates and emailed to the Education and Loss Prevention Coordinator. The Education and Loss Prevention Coordinator will distribute the report for review, approval and signature by the VP of Operations and the Director of Education and Loss Prevention. The Education and Loss Prevention Coordinator will ensure the report is entered into the Safety Database and recorded on the OSHA 300 and 300A logs if applicable.

REPORTING OF FATALITIES AND CATASTROPHES

The Director of Education and Loss Prevention must report to the OSHA regional office within 8 hours after obtaining information on any Fatalities and accidents that cause an employee to be hospitalized for more than 24 hrs.

The Director of Education and Loss Prevention shall be responsible for managing the recording, tracking, and analyzing of the following:

- **Medical Recordable Accident:** is any treatment that a doctor must authorize, conduct, or prescribe. (Such as prescription drugs) It is anything above first aid, but not including diagnostics.
- **Loss time injury or illness:** A loss time injury or illness must be logged on the OSHA 300 form. It is when an employee loses more than eight hours' straight time due to a work-related injury or illness. The time is logged according to the OSHA rules and regulations. The employee cannot be logged for normal scheduled days off or for waiting to see a specialist.
- **First-aid Only Incident:** Is when an employee is treated on site or at a near-by clinic and does not receive medical treatment, such as a shot, stitches, therapy, or other treatment that a doctor must authorize.
- **Insurance loss of time:** the insurance company will pay for loss of wages if an employee loses more than 3 days of work due to the Doctor stating the employee must stay home or not return to work.

All medical recordable and loss time injuries and illnesses must be logged on the OSHA 300 form within six days after the accident.

The Director of Education and Loss Prevention shall be responsible for ensuring that Accidents and Injuries do not lead to either Lost Time or Insurance Loss of Time accidents or injuries. They shall develop and implement aggressive return to work policies and procedures. Accounting and Operations shall assist and cooperate with the Director of Education and Loss Prevention to ensure accidents and injuries do not become classified as Lost Time or Insurance Loss of Time by utilizing the Modified Duty Return to Work Program.

DEFINITION OF MODIFIED DUTY

Due to the result of a work-related injury, the employer must change, make less extreme, or limit the employees normal work assignment to insure the employee can work their normal shift per limitations from medical provider. E Light will make an offer of modified duty to any employee that is given work restrictions by a worker's compensation approved medical provider as a result of a work-related injury regardless of the extent of the restrictions. E Light will find and create a position that can accommodate any work restriction. If the employee rejects the modified duty offer, their compensation for wages may be affected as determined by the worker's compensation carrier.

Employees may be paid for time spent at Doctors' appointments, recovery time, work from home or hospital or other items at the discretion of the Director of Education and Loss Prevention based on the wellbeing of company and its employees. A payment for time as described in this paragraph does not constitute an acknowledgement of fault or liability nor does it determine any precedent for payment of wages or liability for payment of wages.

The Director of Education and Loss Prevention, at their discretion, may elect to utilize the worker compensation carrier Not for Profit program in order to execute the modified duty program.

Any employee that is participating in the Modified Duty/ Return to Work program that has work available to them within their restrictions and does not report for work shall be considered absent for personal reasons and the absence shall not be recorded as lost time and no pay compensation shall be provided for the amount of time the employee was absent.

Implementation

- When an employee has been injured and the Doctor issues work restrictions, regardless of the severity of the restrictions then:
- The Human Resources Director and the Director of Education and Loss Prevention will determine a modified duty job that meets the restrictions as detailed by the worker's compensation doctor and will develop a written modified duty offer. (Example: Employee is to return to a modified work in the office. Duties include but are not limited to copying, filing, light lifting under 25 lbs. sitting 75% of the time, standing 25% of the time, light cleaning and other duties as assigned following the Doctors restrictions.)
- The Director of Education and Loss Prevention will ensure that the written Modified Duty offer is hand delivered to the employee or sent to them by certified, return receipt letter. The offer should include job outline, hours to be worked, pay rate, date to start, Doctors restrictions, and a statement about refusing modified duty may reduce employee compensation coverage.
- The employee shall respond to the offer within (24) hours after receipt of the offer.

EXAMPLE: MODIFIED DUTY LETTER

Date: July 1, 1991

To: Mr. Employee

From: E Light Electric Services Inc.

Re: Employment

Claim: 000000000

Dear Mr. Employee:

We have received a medical report from your physician dated July 11, 1991, which allows you to return to work doing a modified duty. We have a modified duty position, which follows the restrictions given by your doctor. The job and duties are Prefab helper, warehouseman helper and routine activities and other duties as assigned.

If you have any questions, please feel free to contact this office at (111) 111-1111.

Wages will be: The pay rate to be same as prior to your injury.

Hours to be worked: Normal work hours as prior to injury.

As of July 11, 1991, this modified position is available to you.

We are offering you this position according to the Colorado Worker's Compensation Act, the Rules and procedures, Rule VI. Your failure to accept this modified position could/will affect your weekly compensation benefits.

Supervisors Name

Date

- Yes, I accept this modified duty position.
- No, I do NOT accept this modified duty position.

Employee Signature

Date

Doctors Authorization for Modified Duty

Doctors Signature

Date

SITE MODIFIED WORK

Site modified work includes above and:

Duty	Weight	Task-Repetitive	Frequency
Helper	25lbs	Non-Repetitive	8 hours
Description: Hold items, hand tools, gluing, nailing, scrapping, measuring, shoveling, raking, polishing, washing, painting, caulking, sanding, cleaning, operation of threading mule, prefab of light weight plastic pipe or light copper, etc.			

Duty	Weight	Task-Repetitive	Frequency
Trash removal	<75 lbs.	Non-Repetitive	8 hours
Description: Pickup and remove trash to large containers, shoveling, sweeping, cleaning, carrying, etc.			

Duty	Weight	Task-Repetitive	Frequency
Cleaning tools/equip.	<30 lbs.	Slightly	1-8 hours
Description: Washing, scrubbing, cleaning, sorting, waxing, check fluid levels, vacuuming, wiping down, lubricating, light repair of tools, cords, and maintenance of tools and equipment, including filter replacements, inspections, etc.			

Duty	Weight	Task-Repetitive	Frequency
Site Safety Coordinator	<50 lbs.	Non-Repetitive	8 hours
Description: Site safety inspections, accident investigation, safety observer; for confine space entry, crane operations, safety monitor for fall protection, holds and conducts safety training, assists supervisors, assist journeymen, attends site safety meetings, checks material handling; hand and portable tools and equipment, fall protection, electrical, guarding, and other hazards, etc.			

Duty	Weight	Task-Repetitive	Frequency
Inventory Control	<10 lbs.	Non-Repetitive	8 hours
Description: This task is normally for larger jobs to sign for deliveries, order merchandise, track orders, have material handlers place items in building in proper locations, track materials being installed, deal with police on stolen or missing items, deal with transport companies on damaged or defective merchandise. Conducts some safety spot checks.			

Duty	Weight	Task-Repetitive	Frequency
Prefab Helper	<40 lbs.	Slightly	8 hours
Description: Prefab helper will assist in assembling merchandise to be installed, up packing, small assembling and prep work, use of hand tools and some power tools used to assist in preparation of merchandise to be installed. May also serve as a safety monitor, spotter, driver, and other duties as assigned.			

EXAMPLE: RETURN TO WORK VERIFICATION STATEMENT

(This can be sent via email, fax or done by phone.)

1. **Date:** _____
2. **Company Address:** _____
3. **Claim Number:** _____
4. **Date of Injury:** _____

Employee (Joe Henry) has returned to work full time (or Part Time) on _____ and is back to regular hours and wages.

HR or Supervisors Signature Date

ACCIDENT AND INCIDENT INVESTIGATIONS CAUSE RESOURCE INFORMATION

POTENTIAL CAUSES OF LOSS - PERSONAL

INADEQUATE PHYSICAL / PHYSIOLOGICAL CAPABILITY

- Inappropriate Height, Weight, Size Strength, Reach, etc.
- Restricted range of body movement
- Limited ability to sustain body positions.
- Substance sensitivities or allergies
- Sensitivities to sensory extremes (temp or sound.
- Vision deficiency
- Hearing deficiency
- Other sensory deficiency (touch, smell etc.)
- Respiratory incapacity
- Other permanent physical disabilities
- Temporary disabilities

INADEQUATE MENTAL / PSYCHOLOGICAL CAPABILITY

- Fears and phobias
- Emotional disturbances
- Mental illness
- Intelligence level
- Inability to comprehend.
- Poor judgment
- Poor coordination
- Slow reaction time
- Low mechanical aptitude
- Low learning aptitude
- Memory failure

PHYSICAL OR PHYSIOLOGICAL STRESS

- Injury or illness
- Fatigue due to task load or duration
- Fatigue due to lack of rest
- Fatigue due to sensory overload
- Exposure to health hazards
- Exposure temperature extremes
- Oxygen deficiency
- Constrained movements
- Blood sugar insufficiency
- Drugs or substance abuse

MENTAL OR PSYCHOLOGICAL STRESS

- Emotional overload
- Fatigue due to mental task load or speed

- Extreme judgment / decision demands
- Meaningless or degrading activities
- Confusing directions
- Conflicting demands
- Preoccupation with problems
- Frustration
- Mental illness
- Just don't want to be there.
- Other issues on employee's mind
- Mad at supervisor

LACK OF KNOWLEDGE

- Lack of experience
- Inadequate orientation
- Inadequate initial training
- Inadequate update training
- Misunderstood directions

LACK OF SKILL

- Inadequate initial instructions
- Inadequate practices
- Infrequent performance
- Lack of coaching

IMPROPER MOTIVATION

- Improper performance is rewarded.
- Proper performance is punishing.
- Lack of incentives
- Excessive frustration
- Inappropriate aggression
- Improper attempt to save time.
- Improper attempt to avoid discomfort.
- Inappropriate peer pressure
- Improper supervisory example
- Inadequate performance feedback
- Inadequate reinforcement of proper behavior
- Improper production incentives

BASIC CAUSES OF LOSS - JOB FACTORS

INADEQUATE LEADERSHIP AND SUPERVISION

- Unclear or conflicting reporting relationships
- Unclear or conflicting assignments of responsibility
- Improper or insufficient delegation
- Giving inadequate policy, procedure, practices, or guidelines
- Giving objectives and goals or standards that conflict
- Inadequate work planning or programming

- Inadequate instructions, orientation and/or training
- Providing inadequate reference documents, directives and guidelines or publications
- Inadequate identification of loss exposures (IEDIM)
- Lack of supervisory, management jobs knowledge
- Inadequate matching of job knowledge and qualifications
- Inadequate performance measurement and evaluation
- Inadequate or incorrect performance feedback

INADEQUATE ENGINEERING

- Inadequate assessment of loss exposures
- Inadequate consideration of human factors or ergonomics
- Inadequate standards, specifications and/or design criteria
- Inadequate monitoring of construction
- Inadequate assessment of operational readiness
- Inadequate monitoring of initial operation
- Inadequate evaluation of changes

INADEQUATE PURCHASING

- Inadequate specification on requisitions
- Inadequate research on materials or equipment
- Inadequate specifications to vendors
- Inadequate mode or route of shipment
- Inadequate receiving inspection and acceptance
- Inadequate communications of safety and health data
- Improper handling of materials
- Improper storage of materials
- Improper transporting of materials
- Inadequate identification of hazardous items
- Improper salvage and or waste disposal

INADEQUATE MAINTENANCE

- Inadequate prevention
 - Assessment of needs
 - Lubrication and servicing
 - Adjusting and servicing
 - Cleaning and resurfacing
- Inadequate reparative
 - Communication of needs
 - Scheduling of work
 - Examination of units
 - Parts substitution

INADEQUATE TOOLS AND EQUIPMENT

- Inadequate assessment of needs and risks
- Inadequate human factors or ergonomics

- Inadequate standards or specifications
- Inadequate availability
- Inadequate adjustment and repair or maintenance
- Inadequate salvage and reclamation
- Inadequate removal and replacement of unsuitable parts

INADEQUATE WORK STANDARDS

- Inadequate development of standards
- Inventory and evaluation of exposures and need.
- Coordination with process design
- Employee involvement
- Inconsistency standards / procedures / rules.
- Inadequate communications standards
 - Publications
 - Distribution
- Translation to appropriate languages
- Reinforcing with signs, color codes and job codes
- Inadequate maintenance of standards
 - Tracking of workflow
 - Updating
- Monitoring us of standards and procedures or rules

WEAR AND TEAR

- Inadequate planning of use
- Improper extension of service life
- Inadequate inspection and or monitoring
- Improper loading of rate of use
- Inadequate maintenance
- Use by unqualified or untrained person (s)
- Used for wrong purpose.

ABUSE OR MISUSE

- Condoned by supervision.
- Intentional
- Unintentional
- Not condoned by supervision
 - Intentional
 - Unintentional