Safety Handbook



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Revision 4

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Revision History

Department: Human Resources

Revision No.	Date	Description	Editor
1	March 2009	Reformatted the entire handbook to conform to new building specifications as well as general procedures practiced.	L. Holland J. Nolan L. Sadeghi
2	July 2009	Added the Injury and Illness Prevention Plan	L. Holland J. Nolan L. Sadeghi
3	March 2011	Updated Earthquake Procedure to reflect most recent recommendations by FEMA.	J. Hoist
4	January 2014	Updated Emergency Evacuation meeting place	J. Hoist

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1 Introduction

It is the policy of ETAP that each and every one of our employees is entitled to work in a safe and healthful environment. To accomplish this, continued emphasis will be placed on Accident Prevention, Employee Health Protection, and General Loss Control.

Supervisors, departmental heads, and employees at all levels of the ETAP workforce are directed to make job safety a matter equal in importance to all other company operations. It is our belief that workplace accidents and incidents are symptomatic of operational problems; therefore, the control of these incidents will result in efficient production.

The following guidelines are established to assist employees in the areas of Accident Prevention. It is important to note that taking common sense precautions can prevent the majority of accidents and/or incidents. It is, however, up to each and every employee to assume full cooperation in the measures taken for their safety and protection.

To obtain information regarding specific safety policies or procedures, whether or not they are referred to in this Safety Handbook, contact Human Resources. Because ETAP is a growing and changing organization, it reserves full discretion to add to, modify, or delete provisions of this Safety Handbook, or the policies and procedures on which they may be based, at any time without advance notice. For this reason, we urge you to check with Human Resources to obtain current information regarding the status of any particular policy, procedure, or practice.

The Safety Handbook is located on the public intranet. An Acknowledgement Form was given to you during your New Hire Orientation regarding the availability of this Safety Handbook. Should you have any questions regarding any of the policies herein, you are invited to consult the Human Resources Department.

2 General Office Safety

A large percentage of workplace accidents and injuries occur in office buildings. Like the shop or laboratory, the office requires a few preventive measures to ensure a safe and healthful environment. Common causes of office accidents include the following:

- Slipping, tripping, and falling hazards
- Burning, cutting, and pinching hazards
- Improper lifting and handling techniques
- Unobservant and inattentive employees
- Improper office layout and arrangement
- Dangerous electrical wiring
- Exposure to toxic substances
- Horseplay

The following sections address several office safety practices. Other preventive measures not mentioned here may also be necessary.

3 Good Housekeeping Practices

Many office accidents are caused by poor housekeeping practices. By keeping the office floor both neat and clean, you can eliminate most slipping, tripping, and falling hazards. Other good housekeeping practices include the following:

- Ensure that office lighting is adequate and available. Replace burned out light bulbs, and have additional lighting installed, as necessary.
- Ensure that electrical cords and phone cords do not cross walkways or otherwise pose a tripping hazard. If you cannot move a cord, have a new outlet installed or secure the cord to the floor with cord covering strips. Do not tape cords down or run them underneath carpet.
- Immediately report or repair tripping hazards such as defective tiles, boards, or carpet.
- Clean spills and pick up fallen debris immediately. Even a loose pencil or paper clip could cause a serious falling injury.
- Keep office equipment, facilities, and machines in good condition.
- Store items in an approved storage space. Take care not to stack boxes too high or too tight. Ensure that boxes are clearly labeled with their contents.

4 Hazardous Objects and Materials

Hazardous objects such as firearms and knives, with the exception of kitchen knives, utility knives, and box cutters, are not permitted in the workplace. In addition, hazardous chemicals and materials should not be stored in the general office. Hazardous materials include, but are not limited to, the following:

- Carcinogens
- Combustibles
- Flammables
- Gas cylinders
- Irritants
- Oxidizers
- Reactive

5 Preventing Cuts and Punctures

Only use machines that you know how to operate. Never attempt to operate an unfamiliar machine without reading the machine instructions or receiving directions from a qualified employee. In addition, follow these guidelines to ensure machine safety:

- Secure machines that tend to move during operation.
- Do not place machines near the edge of a table or desk.

- Ensure that machines with moving parts are guarded to prevent accidents. Do not remove these guards.
- Unplug defective machines and have them repaired immediately.
- Do not use any machine that smokes, sparks, shocks, or appears defective in any way.
- Close hand-operated paper cutters after each use and activate the guard.
- Take care when working with copy machines. If you have to open the machine for maintenance, repair, or troubleshooting, remember that some parts may be hot. Always follow the manufacturer's instructions for troubleshooting.
- Unplug paper shredders before conducting maintenance, repair, or troubleshooting.

Some items can be very dangerous when worn around machinery with moving parts. Avoid wearing the following items around machines with unguarded moving parts:

- Loose belts
- Jewelry
- Long, loose hair
- Long, loose sleeves or pants
- Scarves
- Ties

6 Preventing Slips and Falls

As outlined in the General Safety chapter of this manual, the easiest way to avoid slips and falls is to pay attention to your surroundings and to avoid running or rushing. To ensure safety for others in the office, follow these additional guidelines:

- Arrange office furnishings in a manner that provides unobstructed areas for movement.
- Keep stairs, steps, flooring, and carpeting well maintained.
- Ensure that glass doors have some type of marking to keep people from walking through.
- Clearly mark any difference in floor level that could cause an accident.
- Do not place wastebaskets or other objects in walkways.

7 Preventing Stress

To reduce stress and prevent fatigue, it is important to take mini-breaks (not many breaks) throughout the day. If possible, change tasks at least once every two hours. Stretch your arms, neck, and legs often if you do the same type of work for long periods of time. Rest your eyes often by closing them or looking at something other than the work at hand. For a quick pick-me-up, breathe deeply several times by inhaling through your nose and exhaling through your mouth. In addition, always try to eat your lunch somewhere other than your desk.

Other examples of stress-relieving exercises that can be done at your desk include the following:

- Head and Neck Stretch: Slowly turn your head to the left, and hold it for three seconds. Slowly turn your head to the right, and hold it for three seconds. Drop your chin gently toward your chest, and then tilt it back as far as you can. Repeat these steps five to ten times.
- Shoulder Roll: Roll your shoulders forward and then backward using a circular motion.
- Upper Back Stretch: Grasp one arm below the elbow and pull gently towards the other shoulder. Hold this position for five seconds and then repeat with the other arm.
- Wrist Wave: With your arms extended in front of you, raise and lower your hands several times.
- Finger Stretch: Make fists with your hands and hold tight for one second, then spread your fingers wide for five seconds.

8 Equipment Safety

As mentioned earlier, common office machines, such as the following, require special safety consideration: copiers, paper shredders, printers, computers, paper cutter, and typewriters. Kitchen appliances also require safety consideration. Be sure you know how to operate these items before using them, and never use one of these items if you think it is defective.

9 File Cabinets and Shelves

Because file cabinets and shelves tend to support heavy loads, treat them with special care. Follow these safety guidelines for file cabinets:

- Never fill only the top drawers in file cabinets. The bottom drawer should always be weighted to prevent tipping.
- Ensure that file cabinet drawers cannot easily be pulled clear of the cabinet.
- Do not block ventilation grates with file cabinets.
- Open only one drawer at a time to keep the cabinet from toppling.
- Close drawers when they are not in use.
- Do not place heavy objects on top of cabinets. Be aware that anything on top of a cabinet may fall off if a drawer is opened suddenly.
- Close drawers slowly using the handle to avoid pinched fingers.
- Keep the bottom drawer full. This will help stabilize the entire cabinet.

In addition, follow these safety guidelines for office shelves:

- Secure shelves by bolting them to the floor or wall.

- Place heavy objects on the bottom shelves. This will keep the entire structure more stable.
- Ensure that there is at least 18 inches between the top shelf items and the ceiling. This space will allow ceiling sprinklers (if present) to function properly if a fire occurs.
- Do not block ventilation grates with shelves.
- Never climb on shelves (even lower shelves). Use an approved ladder.

10 Desks

Follow these safety guidelines for office desks:

- Keep desks in good condition (i.e., free from sharp edges, nails, etc.).
- Ensure that desks do not block exits or passageways.
- Ensure that glass-top desks do not have sharp edges.
- Ensure that desks with spring-loaded tables function properly. The table should not spring forth with enough force to cause an injury.
- Do not climb on desks. Use an approved ladder.
- Keep desk drawers closed when not in use.
- Repair or report any desk damage that could be hazardous.

11 Chairs

Safety guidelines for office chairs include the following:

- Do not lean back in office chairs, particularly swivel chairs with rollers.
- Do not climb on any office chair. Use an approved ladder.
- Office desk chairs should have adjustable back supports and seat height. Make sure that your chair's back support position and seat height are comfortable.
- Take care when sitting in a chair with rollers. Make sure it does not roll out from under you when you sit down.
- Repair or report any chair damage that could be hazardous.
- Do not roll chairs over electrical cords.

12 Ladders

Always use an approved ladder or stool to reach any item above your extended arm height. Never use a makeshift device, such as a desktop, file cabinet, bookshelf, or box, as a substitute for a ladder. Follow these guidelines when using ladders:

- Do not load a ladder above its intended weight capacity.

- Follow all ladder warnings/instructions regarding the height to which it is safe to climb on the ladder.
- Place ladders on slip-free surfaces even if they have slip-resistant feet. Secure the ladder if a slip-free surface is not available.
- Avoid placing ladders in walkways. Secure a ladder if its location could cause an accident.
- Keep areas around ladders clean and free of debris. Do not use a ladder in front of a door unless the door is locked and barricaded.

13 Workstation Arrangement

With the extensive use of computers and other automated desk devices in the workplace, employees must take special care to ensure proper workstation arrangement. For the purpose of this manual, a workstation consists of the equipment and furniture associated with a typical desk job (i.e., desk, chair, telephone, and computer components).

In recent years, computer screens or Video Display Terminals (VDTs) have received much attention concerning non-ionizing radiation levels. Tests prove, however, that VDTs do not emit harmful levels of radiation. Improper workstation arrangement combined with repetitive motion, however, may contribute to visual and musculoskeletal fatigue.

Cumulative trauma disorders, such as carpal tunnel syndrome may result from the stress of repetitive motion. Therefore, it is very important to arrange your workstation properly and to take breaks frequently.

The following sections offer recommendations for ensuring employee comfort through proper workstation arrangement.

14 Operator's Position

Your seating position at work is important to your comfort and safety. To reduce the painful effects of repetitive motion, follow these guidelines when working with computers or typewriters:

- Always sit up straight. Make sure your chair is adjusted to provide adequate support to your back.
- Place your feet flat on the floor or on a footrest. Lower legs should be approximately vertical, and thighs should be approximately horizontal. The majority of your weight should be on the buttocks.
- Ensure that there is at least 1 inch of clearance between the top of your thighs and the bottom of the desk or table.
- Keep your wrists in a natural position. They should not rest on the edge of the desk.
- Keep the front edge of your chair approximately 4 inches behind your knees.

15 Equipment Arrangement

By properly arranging your equipment, you can also help reduce the harmful effects of repetitive motion. Follow these guidelines for arranging office equipment:

15.1 Lighting

Lighting around computer workstations should illuminate the work area without obscuring the VDT or causing glare. Position computer screens, draperies, blinds, and pictures to reduce glare during work hours (e.g., place the VDT screen at a right angle to the window).

15.2 Video Display Terminal (VDT) Screen

VDT images should be clear and well-defined. Adjust the screen's brightness, contrast and display size to meet your needs. If a screen flickers or jumps, have it repaired or replaced. Place the VDT 20-28 inches away from your face. The center of the VDT should be approximately 15 to 25 degrees below your line of vision.

15.3 Keyboard

Position computer keyboards so that the angle between the forearm and upper arm is between 80 and 120 degrees. Place the keyboard in an area that is accessible and comfortable.

15.4 Document Holders

Keep documents at approximately the same height and distance from your face as the VDT screen.

15.5 Telephones

Neck tension is a common problem caused by holding the telephone between the head and neck. Use a headset or speakerphone if you use the telephone for extended periods of time.

16 Emergency Action Plan

An emergency action plan (EAP) is a written document required by particular OSHA standards [29 CFR 1910.38(a)]. The purpose of an emergency action plan is to protect the employees from serious injury, property loss, or loss of life, in the event of an actual or potential major disaster. A major disaster may include, but not be limited to, any of the following: fire, tornado, earthquake, bomb threat, or hazardous chemical spill. In the event of a major disaster, this emergency action plan describes the initial responsibilities and actions to be taken to protect all employees.

16.1 Reporting Emergencies

All site personnel, upon discovering an emergency situation, shall immediately call 911. Calmly and clearly report the nature of the emergency, location, and your name. Stay on the telephone until you are told to hang up.

16.2 Evacuation Plans

Emergency evacuation escape route plans are posted in key areas throughout the building. All employees should also be familiar with this plan in case of an emergency.

In the event of a fire emergency, all occupants will promptly exit the building by the nearest exit. Once clear of the building, go to the designated safety area located in the front parking lot/driveway area near the front entrance of the building and immediately report to their supervisor. After evacuation, each supervisor (or designee) is responsible for accounting for each employee assigned to that supervisor by rallying at the designated point and by conducting a head count. Each employee will be accounted for by name. Each employee is responsible for reporting to his or her Supervisor so an accurate head count can be made. All supervisors are required to report their head count to the Emergency Plan Coordinator.

16.3 Re-Entry

Once the building is evacuated, no one is to re-enter the building for any reason. Rescue personnel (if designated and properly trained) are excluded from this rule. When the Fire Department or other responsible agency has notified us the building is safe for re-entry, then, and only then, will employees return to their workstations.

17 Earthquake

California is a part of the country that experiences a large number of earthquakes. Although most are quick and harmless, some can be quite strong, presenting a wide variety of potential hazards.

17.1 While Inside the Building:

- Take cover under a sturdy desk or table until the shaking has stopped. If there is not a desk or table near you, cover your face and head with your arms and crouch in an inside corner of the building.
- Stay clear of windows or glassed-in areas, cabinets, light fixtures, or equipment that may fall.
- Stay inside until the shaking stops and it is safe to go outside. Research has shown that most injuries occur when people inside buildings attempt to move to a different location inside the building or try to leave.
- Be aware that the electricity may go out or the sprinkler systems or fire alarms may turn on.

17.2 While Outside the Building:

- Stay outside-DO NOT enter the building.
- Stay clear of electrical wires, poles, trees, or anything that might fall.

17.3 After Earthquake:

- Evacuate the building immediately and meet in the parking lot outside the main entrance to the building.

- If you deem it unsafe to leave the immediate area because of debris or fallen power lines blocking the exit, stay where you are and wait for emergency personnel to locate you. If you can exit the building, be cautious of falling debris while moving inside and immediately outside the building.
- Do not allow people to re-enter the building until the building has been inspected for hazards or structural damage.
- Be prepared for aftershocks.
- If certified, give first aid to the injured. Do not move an injured person except to protect them from another injury. Provide first aid at the site only when it is safe to do so.
- Notify emergency personnel if someone is trapped or missing.
- If you are trapped in the building, bang on a desk, wall or exposed piping as loudly as you can so emergency personnel can hear it and respond to you. Shout only as a last resort as shouting can cause you to inhale dangerous amounts of dust.

18 Power Failure

If a power failure occurs, employees should do the following:

- Assemble in a common area.
- Turn off light switches. Turn off or unplug the power to electrical equipment (i.e. computers, copiers, coffee pots).
- Open shades to draw natural light.

19 Fire or Explosion

Immediately notify a Supervisor or the Emergency Plan Coordinator if you see fire or smoke. The Emergency Plan Coordinator will immediately call 911 or the Orange County Fire Department for help.

19.1 When you hear the fire alarm:

- Evacuate the building immediately and follow the evacuation plan.
- When exiting a room, always use the back of your hand to test the door for heat. If the door is hot do not open it, change direction and find another exit.
- When smoke is present, stay low and crawl to your exit if needed.
- Assist those with disabilities to the best of your ability. Ask what you can do for them, but do not put yourself at risk. If you are unable to assist them, notify authorities of their location as soon as possible.
- If another person is on fire, yell---STOP---DROP---ROLL.
- If you are on fire, STOP---DROP---ROLL.

- When you arrive at the safety meeting area, do a head count of employees from your department. Let emergency personnel know if someone is missing and their last known location as soon as possible.

19.2 If you find a fire:

- Inform your Supervisor or the Emergency Plan Coordinator.
- Use fire extinguishers only if the fire is small (waste basket size) and you feel comfortable using the extinguisher.

19.3 To use the fire extinguisher:

- Pull the pin.
- Aim the nozzle at the base of the fire.
- Squeeze the handle and spray in a side-to-side motion.

19.4 If you are trapped in a room:

- Close doors and place material under them to prevent smoke from coming in.
- Do not open a window unless you need to in order to escape. Oxygen can fuel the fire.
- Use a phone to call 911 to advise that you are trapped. If there is no phone, motion through a closed window, bang on a wall, the floor or a desk until you are found.

20 Bomb Threat

History has shown that most bomb threats are false in nature. Actual bombings usually occur without warning. However, all bomb threats will be taken very seriously.

- If you are the person receiving a Bomb Threat remain calm, and talk to the person to obtain information.
- After the caller has hung up, immediately call 911. Notify the Emergency Plan Coordinator and relay all of the information you have gathered.
- Evacuate the premises and proceed to the Safety Meeting Area until further instructions are given.

21 Medical Emergencies

- Don't panic. Assess the situation.
- Have someone call 911. If you are alone, yell as loudly as possible for help. If you are unable to summon help, you may have to call 911, then return and assist the person to the best of your ability.
- Give the 911 operator as much information as possible, i.e. type of emergency, what help is needed, exact address, building name, room number, telephone number, information from Medic bracelet or necklace if available, and victim information.

- Don't hang up until you are told to do so by the 911 operator.
- Do not move the victim.
- If certified, give first aid if needed until emergency personnel arrive.

21.1 If the Victim is Unconscious:

- Check the airway and clear if needed. Check for a pulse.
- Begin CPR if needed. If you do not know CPR, ask the 911 operator for directions.

21.2 If the Victim is Choking:

- Make sure the victim is coughing and getting air.
- If the victim cannot speak or cough, and you think something may be lodged in their throat, from behind, slip your arms around the victim's waist. Make a fist with one hand and grasp with the other hand. Place your fist right above the navel area. Press into the abdomen with quick upward thrust. Repeat until the object is removed, or the victim starts breathing or coughing.

21.3 If the Victim is Bleeding:

- Use rubber gloves (contained in the first aid kit) and apply pressure to the area.
- If possible, elevate bleeding area above level of the heart.

22 Suspicious Packages and Mail

Due to the alleged anthrax threats in the United States, the Center for Disease Control has put out guidelines to follow if you suspect a letter could contain dangerous substances.

22.1 Suspicious Package

If you suspect that the package could be explosive, evacuate the area and call 911 from a safe location. If you see wiring, or hear noise coming from the package, the weight of the package is odd for its size, there is liquid or powder leaking from the package, a chemical odor is present, there are odd stains on the package, or there is excessive packaging, this should alert you that it could be explosive.

Avoid the use of radios and cell phones near any suspicious package(s) as it has been shown that the radio waves can detonate an explosive device.

22.2 Suspicious Letter

If you receive a suspicious letter evacuate the area and call 911 from a safe location. If you see wiring, the weight of the letter is odd for its size or lopsided, the envelope is stained, there is powder or liquid leaking from the envelope, a chemical odor is present, a foreign return address, or no return address, this should alert you that the letter may contain dangerous materials.

If the letter or package has already been opened, and a powder or other substance has spilled from the package or letter, do not clean it up**.** Leave it where it is, evacuate the area, wash your

hands with soap and water, and call 911 from any phone. Notify management or the Emergency Plan Coordinator as soon as possible.

INJURY & ILLNESS PREVENTION PLAN

RESPONSIBILITY

The Injury and Illness Prevention Program (IIP Program) administrator, Human Resources Manager has the authority and the responsibility for implementing and maintaining this IIP Program for ETAP

Managers and supervisors are responsible for implementing and maintaining the IIP Program in their work areas and for answering worker questions about the IIP Program. A copy of this IIP Program is available from each manager and supervisor and on ETAP's Intranet.

COMPLIANCE

All workers, including managers and supervisors, are responsible for complying with safe and healthful work practices. Our system of ensuring that all workers comply with these practices includes one or more of the following checked practices:

- ☒ Informing workers of the provisions of our IIP Program.
- ☐ Evaluating the safety performance of all workers.
- ☐ Recognizing employees who perform safe and healthful work practices.
- ☒ Providing training to workers whose safety performance is deficient.
- ☒ Disciplining workers for failure to comply with safe and healthful work practices.

COMMUNICATION

All managers and supervisors are responsible for communicating with all workers about occupational safety and health in a form readily understandable by all workers. Our communication system encourages all workers to inform their managers and supervisors about workplace hazards without fear of reprisal.

Upon hiring, management will identify any workers with special communication needs. Management will ensure that such a worker understands the safety and health requirements before being assigned to duties exposing them to workplace hazards.

Our communication system includes one or more of the following checked items:

- ☒ New worker orientation including a discussion of safety and health policies and procedures.
- ☒ Review of our IIP Program.
- ☒ Workplace safety and health training programs.
- ☐ Regularly scheduled safety meetings.
- ☒ Effective communication of safety and health concerns between workers and supervisors,

including translation where appropriate.

☒ Posted or distributed safety information.

☐ A system for workers to anonymously inform management about workplace hazards.

HAZARD ASSESSMENT

Periodic inspections to identify and evaluate workplace hazards shall be performed by a competent observer in the following areas of our workplace:

Periodic inspections are performed according to the following schedule:

1. When we initially established our IIP Program;
2. When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace;
3. When new, previously unidentified hazards are recognized;
4. When occupational injuries and illnesses occur;
5. When we hire and/or reassign workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted; and
6. Whenever workplace conditions warrant an inspection.

ACCIDENT/EXPOSURE INVESTIGATIONS

Procedures for investigating workplace accidents and hazardous substance exposures include:

1. Interviewing injured workers and witnesses;
2. Examining the workplace for factors associated with the accident/exposure;
3. Determining the cause of the accident/exposure;
4. Taking corrective action to prevent the accident/exposure from reoccurring; and
5. Recording the findings and corrective actions taken.

HAZARD CORRECTION

Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

1. When observed or discovered; and
2. When an imminent hazard exists which cannot be immediately abated without endangering worker(s) and/or property, we will remove all exposed workers from the

area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection.

TRAINING AND INSTRUCTION

All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction can be provided through a brief on-site safety meeting. Any training and instruction shall be provided as follows:

1. When the IIP Program is first established;
2. To all new workers, except for construction workers who are provided training through a construction industry occupational safety and health training program approved by Cal/OSHA;
3. To all workers given new job assignments for which training has not previously provided;
4. Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;
5. Whenever the employer is made aware of a new or previously unrecognized hazard;
6. To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed; and
7. To all workers with respect to hazards specific to each worker's job assignment.

General workplace safety and health practices include, but are not limited to, the following:

1. Implementation and maintenance of the IIP Program.
2. Emergency action and fire prevention plan.
3. Provisions for medical services and first aid including emergency procedures.
4. Prevention of musculoskeletal disorders, including proper lifting techniques.
5. Proper housekeeping, such as keeping stairways and aisles clear, work areas neat and orderly, and promptly cleaning up spills.
6. Prohibiting horseplay, scuffling, or other acts that tends to adversely influence safety.
7. Proper storage to prevent stacking goods in an unstable manner and storing goods against doors, exits, fire extinguishing equipment and electrical panels.
8. Proper reporting of hazards and accidents to supervisors.
9. Hazard communication, including worker awareness of potential chemical hazards, and proper labeling of containers.
10. Proper storage and handling of toxic and hazardous substances including prohibiting eating or storing food and beverages in areas where they can become contaminated.

RECORDKEEPING

We have checked one of the following categories as our recordkeeping policy.

☒ **Category 1.** Our establishment has twenty or more workers or has a workers' compensation experience modification rate of greater than 1.1 and is not on a designated low hazard industry list. We have taken the following steps to implement and maintain our IIP Program:

1. Records of hazard assessment inspections, including the person(s) or persons conducting the inspection, the unsafe conditions and work practices that have been identified and the action taken to correct the identified unsafe conditions and work practices, are recorded on a hazard assessment and correction form; and
2. Documentation of safety and health training for each worker, including the worker's name or other identifier, training dates, type(s) of training, and training providers are recorded on a worker training and instruction form.

Inspection records and training documentation will be maintained according to the following checked schedule:

☒ For one year, except for training records of workers who have worked for less than one year which are provided to the worker upon termination of employment; or
☐ Since we have less than ten workers, including managers and supervisors, we only maintain inspection records until the hazard is corrected and only maintain a log of instructions to workers with respect to worker job assignments when they are first hired or assigned new duties.

☐ **Category 2.** Our establishment has fewer than twenty workers and is not on a designated high hazard industry list. We are also on a designated low hazard industry list or have a workers' compensation experience modification rate of 1.1 or less, and have taken the following steps to implement and maintain our IIP Program:

1. Records of hazard assessment inspections; and
2. Documentation of safety and health training for each worker.

Inspection records and training documentation will be maintained according to the following checked schedule:

☐ For one year, except for training records of workers who have worked for less than one year which are provided to the worker upon termination of employment; or
☐ Since we have less than ten workers, including managers and supervisors, we maintain inspection records only until the hazard is corrected and only maintain a log of instructions to workers with respect to worker job assignments when they re first hired or assigned new duties.

☐ **Category 3.** We are a local governmental entity (any county, city, or district, and any public or quasi-public corporation or public agency therein) and we are not required to keep written records of the steps taken to implement and maintain our IIP Program.

HAZARD ASSESSMENT AND CORRECTION RECORD

Date of Inspection:	Person Conducting Inspection:
Unsafe Condition or Work Practice:	
Corrective Action Taken:	

Date of Inspection:	Person Conducting Inspection:
Unsafe Condition or Work Practice:	
Corrective Action Taken:	

Date of Inspection:	Person Conducting Inspection:
Unsafe Condition or Work Practice:	
Corrective Action Taken:	

ACCIDENT/EXPOSURE INVESTIGATION REPORT

Date & Time of Accident: _____

Location: _____

Accident Description: _____

_____

Workers Involved: _____

Preventive Action Recommendations: _____

_____

Corrective Actions Taken: _____

_____

Manager Responsible: _____ Date Completed: _____

WORKER TRAINING AND INSTRUCTION RECORD

Employee	Training Dates	Type of Training	Trainer(s)

Attachment A

Employee Acknowledgement

Employee Name:_____

I understand that ETAP's Safety Handbook including Appendix A Injury and Illness Prevention Plan appears on the ETAP Staff Intranet Site (http://intranet/). I understand that I am responsible for reading the Safety Handbook, familiarizing myself with its contents, and abiding by the guidelines set forth as established by ETAP from time to time. I also understand that ETAP may modify or rescind any policies or practices described in the Safety Handbook at any time without prior notice to me.

I further understand that I am responsible for periodically reviewing the Handbook, to ensure that I am familiar with all changes that may be made to this document from to time.

_____	_____
Signature over Printed Name	Date

Operation Technology, Inc.

Quality Assurance Manual

Revision 21

April 13, 2022

Operation Technology, Inc.
ETAP QA Controlled Document

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OTI QA Manual

Revision 21, April 13, 2022

Operation Technology, Inc., implements this QA Manual for the purpose of establishing and documenting the software quality assurance program for OTI's Electrical Engineering software package - ETAP (ELECTRICAL TRANSIENT ANALYZER PROGRAM). This ETAP-PS Software Quality Assurance Plan in conjunction with ETAP Operations Quality Assurance Plan (ETAP OQAP) and ETAP Quality Assurance Plan (ETAP QAP) is specifically dedicated to meeting the requirements of the following standards:

- ✓ **United States Code (U.S.C.) Title 10 CFR 50, Appendix B** – QUALITY ASSURANCE CRITERIA FOR NUCLEAR POWER PLANTS AND FUEL REPROCESSING PLANTS
- ✓ **United States Code (U.S.C.) Title 10 CFR Part 21** – REPORTING OF DEFECTS AND NONCOMPLIANCE
- ✓ **United States Code (U.S.C.) Title 10 CFR Part 50.55** – CONDITION OF CONSTRUCTION PERMITS, EARLY SITE PERMITS, COMBINED LICENSES, AND MANUFACTURING LICENSES
- ✓ **ASME-ANSI N45.2-1977 – QUALITY ASSURANCE PROGRAM REQUIREMENTS FOR NUCLEAR FACILITIES**
- ✓ **ASME NQA-1 (INCLUDES SUBPART 2.7)** – QUALITY ASSURANCE REQUIREMENTS FOR NUCLEAR FACILITY APPLICATIONS
- ✓ **ISO 9001:2015 Standards** – QUALITY MANAGEMENT SYSTEMS - REQUIREMENTS
- ✓ **IEEE Std 730.1-1995** – IEEE GUIDE FOR SOFTWARE QUALITY ASSURANCE PLANNING
- ✓ **CAN/CSA-Q396.1.2-89–** QUALITY ASSURANCE PROGRAM FOR PREVIOUSLY DEVELOPED SOFTWARE USED IN CRITICAL APPLICATIONS
- ✓ **ASME-ANSI N45.2.2-1972** – PACKAGING, SHIPPING, RECEIVING, STORAGE AND HANDLING OF ITEMS FOR NUCLEAR POWER PLANTS

Quality assurance comprises all those planned and systematic actions necessary to provide adequate confidence that ETAP shall perform satisfactorily when in used in activities directly associated with Nuclear Power Plants. It is vital for the success of the ETAP-PS SQAP program that all personnel involved with the design and development of ETAP fully integrate all facets of the approved program into their daily operations and methodologies.

Part 1: ETAP-PS SQAP
Prepared By: Jennifer Marinas, Director QA (Name) _____ (Signature) 04/13/2022 (Date)

Part 2: ETAP OQAP
Prepared By: Mary Beal, Operation Manager (Name) _____ (Signature) 04/13/2022 (Date)

Part 3: ETAP QAP
Prepared By: Jennifer Marinas, Director QA (Name) _____ (Signature) 04/13/2022 (Date)

Reviewed By: Dr. Jun Qiu, Sr. VP Engineering (Name) _____ (Signature) 4/14/2022 (Date)

Approved By: Tanuj Khandelwal, CEO (Name) _____ (Signature) 4/19/2022 (Date)

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