



Green Earth Technologies Group, LLC

Health & Safety Manual Checklist

1. Safety Requirements

- a. Pre-construction meeting
- b. Site safety plan
- c. Inspections
- d. Progress meetings
- e. Tool box talk
- f. Safety Orientation

2. Accident Reporting

- a. Report all accidents to supervisors, EPSM BSO, ASR
- b. Report injuries immediately
- c. All injuries/accidents to be reported in 24 hrs
- d. Accident report form filled out within 24 hrs
- e. Lost time accidents formal review meeting

3. Safety Violations

- a. No Hard hats or safety glasses
- b. Improper setup of scaffolding
- c. no backup or travel alarm on mobile equipment
- d. Failure to protect reinforcing or form stakes that present a hazard
- e. No personal fall system/guardrail with fall hazard 6' or greater
- f. Failure to provide excavation and trenching work
- g. Working in structures where utilities have not been cut or capped
- h. Failure to provide fencing around site
- i. Failure to barricade a sidewalk if fencing is temporarily removed to complete work
- j. Failure to provide proper guardrails on scaffold
- k. All others per OSHA regulations

4. Emergency Procedures

- a. Fire
- b. High Winds/Tornado
- c. Severe Injury/Death
- d. Property Damage
- e. Major Incident/ I.e. Collapse
- f. BSO responsible to contact authorities, evacuating a project, directing emergency personnel Etc.

5. First Aid Procedures

- a. One Foreman or supervisor with 1st Aid and CPR Certification
- b. protective equipment on site
- c. 1st Aid equipment on site
- d. Panel of Physicians available
- e. 911 will be dialed in case of emergency
- f. EPSM notified immediately of emergency

6. Monthly Safety Report

- a. BSO will issue to company & EPSM a safety report monthly
- b. Summary of accidents/incidents within past month are reported
- c. Total of man-hours worked on project that month are reported
- d. Summary of safety violations issued by government agencies reported, if any
- e. Work to take place in upcoming month

7. Substance Abuse Policy

- a. Urine samples are collected before employed by company
- b. Employee will be tested if under suspicion of drugs
- c. Post-accident/incident/injury/or near miss incident could result in testing
- d. Alcohol screening conducted in reasonable suspicion
- e. Alcohol screening conducted utilizing Breath Alcohol Testing devices (0.4 bac considered positive)
- f. Any positive drug/alcohol test, employee will be barred and no longer eligible for referral back to demolition project of company
- g. All testing is inherently sensitive and is to be treated confidential

8. Protection Equipment

- a. Hard Head Protection
- b. Eye and Face Protection
- c. Hearing Protection
- d. Respiratory Protection
- e. Wearing Apparel- Shirts covering shoulders & torso, long pants, firm sole leather shoes, steel toe work shoes with Metatarsal guard if involved with manual demolition & cleanup operations, loose jewelry prohibited
- f. Hand Protection

9. Fire Protection

- a. Use only containers approved/labeled by Underwriters' Laboratories, Factory Mutual or DOT, for transport/storing flammable/combustibles liquids
- b. Safety cans require self-closing spouts for transport/storage
- c. No bulk storage of flammables/combustibles liquids on site
- d. Foreman/Supervisor responsible for removal (when remove not feasible) of all combustible/flammable materials
- e. Fire extinguishers/Fire watch provided
- f. Supervisor provides ½ hour fire watch after "hot work" is completed

10. House Keeping

- a. Scrap lumber with nails, bricks, pipes & all other debris keep clear from passageways/steps
- b. Dumped material secured by attached toeboard or bumper (no less 4' in thick, 6' in high) provided at chute opening
- c. Piles stacked at safe clearances to prevent toppling
- d. Spills cleaned and contained immediately
- e. Hazardous spills or disposal of oil is prohibited
- f. Hazardous spills are to be reported immediately to the Project Safety Monitor
- g. "Clean as you go" policy, trash/garbage to be placed in appropriate containers
- h. Nails protruding from lumber shall be removed or bent over immediately

11. Cranes

- a. Annual Inspection Certification is required
- b. Current annual inspections prior and during site work by accredited agency and submitted to EPSM
- c. Crane operations required at all times, a CCO Card (Certified Crane Operators) Card

12. Lockout/Tagout

- a. Notify employees or servicing/maintenance on machinery
- b. Understanding hazards and how to control machine
- c. Shut machine down correctly
- d. Deactivate energy source
- e. Lock out energy isolating device
- f. Stored on residual energy dissipated or restrained
- g. Testing to ensure equipment is disconnected
- h. The equipment is locked out

13. Asbestos

- a. When in doubt, treat all material as asbestos
- b. All ACM (Asbestos Containing Material) is handled by certified and license asbestos abatement personnel
- c. Any uncertified/unlicensed employees with not cross barrier/containment area

- d. Any discovered ACM in damaged/poor conditions to repeat it to the supervisor
- e. Protection provided to clean and dispose of pigeon droppings known as Histoplasmosis

13. Public Protection

- a. Work is not permitted in public areas
- b. When necessary in maintaining public use, use barriers and overhead protection
- c. Sidewalks should be clear of obstruction
- d. Appropriate warnings/instructional safety signs
- e. Signal men control movement of motorized equipment
- f. Temporary fencing required around perimeter at least 6 foot tall
- g. Back up alarms on all motorized vehicles with obstructed views

14. Procedures for correcting safety and health hazard

- a. Worker takes steps to solve problem
- b. If worker can't solve problem, report immediately to supervisor
- c. If supervisor cannot address, contact BSO
- d. If BSO cannot solve issue, contact EPSM and Company Headquarters

15. OSHA

- a. Enforced by project manager
- b. Each employee receives training specific to demolition operation
- c. Evaluation of employees to ensure understanding
- d. Workers Safety Orientation prior to work at site
- e. Additional training on certain subjects

16. OSHA Inspections

- a. Company volunteers OSHA to conduct inspections
- b. BSO, Project manager, and Company Headquarters keep copy of any citation or input

17. DEMO

- a. Each Project manager & supervisor must have Demo plan
- b. Before demolition work, and Engineering Survey report is required
- c. Determine beforehand if any dangerous chemical or materials are present at the site
- d. Survey reports must be signed and dated by supervisors and work chiefs that conduct survey
- e. Copy of survey should be sent to the EPSM

18. Engineering Survey Report (Should include)

- a. Construction type & structure size
- b. Height
- c. Structural hazards

- d. Basements & confined spaces
- e. Party wall locations
- f. Wall tie requirements and number
- g. Shoring requirements for adjacent structures
- h. Type of shoring and location
- i. Protection requirements for adjacent structures
- j. Demolition procedures that will be used
- k. Protection required
- l. Overhead and Underground utility protection required
- m. -Purging and testing of above/below ground tanks
- n. Reported hazard materials
- o. Existing damage to nearby structures documented

19. Safety Report

- a. Plans specify safe work procedures, practices & safety equipment before activities begin
- b. Engineering Safety Report is read by Supervisor and reviewed by ESPM
- c. Pre-Notify medical/emergency personnel, etc. that they may be required
- d. Posting emergency contact numbers
- e. Plan for fall protection, hazards, and exposures
- f. -Confirm PPE (Personal Protection Equip.) is on site
- g. Securing perimeter of site, and warning signs
- h. Fire prevention, i.e.: smoking in designated areas, fire dept. gain access, fire extinguishers, and a fire warning system to evacuate

20. Work Progression

- a. Hand demo should start at top of structure
- b. Each floor and supporting members removed before removal of lower floor
- c. Implement controls to eliminate hazards from glass, concrete, brick etc.
- d. Document inspection of deteriorating walls, floors, etc.
- e. No employee permitted to work where hazard exist

21. Debris removal

- a. Chute openings for dumped debris, protected by 42 in guardrail above floor, no less than 6ft from projected edge
- b. Warning signs posted EACH SIDE of debris opening at each floor
- c. Begin above removal before removal of bottom floors
- d. Do not exceed allowable floor load
- e. Wood floor construction, floor joist may be removed from not more than one floor above grade
- f. Steel beams to be left in place until other support is installed
- g. Any cut in floor for debris disposal no larger than 20% of total floor area

22. Wall Removal

- a. Metal walls not permitted to fall upon floors in masses to exceed safe carrying floor capacities
- b. Support/structural walls not to be cut/removed until above stories are demolished/removed
- c. Retaining walls to support earth/adjoining structures shall not be demolished until underpinned
- d. Walls not used to retain debris

23. Floor removal

- a. Opening cut in floor extends full span of arch between supports
- b. Planks no less than 2 in by 10 in cross section to break down floor arches between beams
- c. Straddle space between planks not to exceed 16 in
- d. Safe walkways, no less than 18 in wide, formed by wood planks, no less than 2 in thick/ or equivalent strength
- e. Stringers of sufficient strength support floor planks
- f. End of stringers shall be supported by floor beams or girders NOT by floor arches alone
- g. Planks laid together over solid bearing with ends overlapping by 1 foot
- h. When arches removed, no employee is allowed near & area will be barricaded

24. Mechanical Demolition

- a. No person allowed in any area where mechanical demolition is being performed
- b. When pulling over walls, all steel members affected are to be cut free
- c. All roof cornices, or stonework, removed prior to wall removal

25. Heavy Demolition

- a. Equipment should be checked every day before every single operation
- b. Use the buddy system
- c. All workers must wear bright/protective clothing
- d. Parking brakes
- e. Bulldozer, scraper blades, etc. should be lowered when being repaired
- f. All controls should be in neutral position, motor stopped, brakes set, when not in use
- g. Do not exceed vehicle rated load or lift capacity

26. Common Industrial Injuries

- a. Silicosis
- b. Air embolism
- c. Asbestos poisoning
- d. Decompressed sickness
- e. Hand-Arm vibration syndrome/HAVS/White finger

27. Fall Protection

- a. Inspect the area to determine what hazards exist or may arise
- b. Identify the hazards and select the appropriate measures and equipment
- c. Ensure employee understands training and follow procedures
- d. Evaluate steps employees have taken to meet fall protection requirements
- e. Guardrails, personal fall arrest systems, or nets
- f. Ladders, scaffolds, and aerial lifts can be used if fall protection is not feasible

28. Anchorages

- a. Must be capable of supporting 5000 pounds or twice the maximum force generated if employee falls
- b. Must tie off or above the 'D' ring point of belt or harness
- c. Make sure no lower level will be struck during a fall

29. Ladder Safety Requirement

- a. Must face ladder at all times
- b. Do not straddle step ladder
- c. Do not climb with materials in hand
- d. Employee must get down off ladder before moving it
- e. -Portable rung/cleat ladders used at horizontal distance from top support to foot of ladder, one quarter of working length of ladder
- f. Ladder placed with secure footing, lashed or held in position
- g. Equip all portable rung ladders with non-slip bases when there is a hazard for slipping
- h. Top of ladder must be placed with two rails supported unless equipped with single support attachment
- i. On two section extension ladders, minimum overlap for 2 sections in use will be according to OSHA specifications
- j. Two section extension ladders shall NOT be used separately
- k. -Portable rung ladders with reinforced railed will be used only with metal reinforcement on underside
- l. No climbing on bracing on the back of stepladder
- m. Do not place ladder on unstable bases to obtain additional height
- n. Do not use as runways, platforms or scaffolds
- o. Do not tie or fasten ladders together for longer sections
- p. Do not use to gain access to roof or landing unless ladder extends 3 feet above point of support
- q. Do not use as brace, skid, guy or gin pole, etc.
- r. Only one person on ladder at a time
- s. Ladders with broken or missing steps, rungs, cleats, etc. shall not be used at all
- t. Ladders made by fastening cleats across single rail are not to be used
- u. No aluminum ladders permitted
- v. The top and top step across single rail will not be used
- w. Ladders shall be Type IA (300 pound rated) or greater
- x. No job-made wooden ladders permitted

30. Inspection and Maintenance

- a. Ladders Inspected daily to ensure safety/serviceability
- b. Will be maintained in good usable conditions at all time
- c. Joint between steps and side rails must be kept tight, all fittings securely attached
- d. Movable parts must operate freely without binding or undue play
- e. Metal bearing of locks, wheels, pulley, etc. will be frequently lubricated
- f. Frayed/badly worn rope will be replaced
- g. Safety feet and other aux equipment will be kept in good condition
- h. Ladders with defects will be labeled as Dangerous and sent for repair or destruction
- i. If ladders tip over, the supervisor and BSO will inspect
- j. If Ladders are exposed to oil and grease, equipment will be cleaned before use

31. Scaffolding Safety Requirement

- a. Scaffolding shall be erected, used maintain and dismantled in accordance with CFR Part 1926 Subpart L
- b. Footing/Anchorage shall be sound, rigid and capable of carrying intended load
- c. Unstable objects, shall not be used to support scaffolding or planks
- d. Safe means of access to and egress from the work level
- e. Must be secured from top and bottom
- f. Rung spacing on ladder frame scaffolds must not exceed 16-3/4 in from top of rung to top of rung
- g. No scaffold shall be erected, moved or dismantled without supervision
- h. A competent person shall inspect daily prior to use
- i. Any accessories such as braces, brackets, trusses, etc. that are damaged should be replaced or repaired
- j. All load-carrying members of scaffold framing shall be a minimum of 1,500 fibers (stress grade)
- k. All planking of platforms shall overlap a minimum of 12 inches
- l. All scaffolds shall be erected plumb
- m. Scaffolds shall be capable of supporting at least four times maximum intended load
- n. Intended load shall not be exceeded
- o. Guardrails and toeboards shall be securely installed on all open sides/ends of platforms more than 6 feet above ground or floor
- p. Guardrails shall be 2x4 in. approx. 42 in. high, with midrail at approx. 21 in.
- q. Support shall be at intervals not to exceed 8 ft.
- r. Toeboard shall be a minimum of 4 in in height
- s. Persons required to work or pass under scaffold, scaffold will be provided with a screen
- t. Scaffolds shall be tied into structure whenever height exceeds 4 times minimum base dimensions or length exceeds 20 ft.
- u. Personnel not permitted to ride on mobile scaffolds
- v. Mobile scaffolds only to be used on smooth level surfaces
- w. No rigging from scaffold members permitted unless catheads or well wheels designed for such use
- x. Overhead protection shall be provided
- y. Slippery conditions on scaffolds shall be eliminated immediately
- z. The use of shore or lean-to scaffolds is prohibited
- aa. Materials being hoisted onto scaffold should have a tag line

bb. Employee shall not work on scaffolds during storms or high winds

32. Aerial Lifts

- a. Shall be used per 29 CFR 1926.453
- b. Any employee operating lift must be trained with training documentation
- c. Employees shall be trained on electrical hazards and fall objects hazards
- d. Employees shall be trained on proper handling of materials on scaffolds
- e. All employees should know maximum intended load and load-carrying capacities of scaffolds
- f. Employees erecting/disassembling scaffolds shall be trained to recognize hazards
- g. Retraining shall be performed per 29 CFR 1926.454(c)(1-3)

33. Trenching/Excavation Requirements

- a. Employees exposed to vehicular traffic shall wear reflective vest/clothing
- b. Hard hats must be worn
- c. Employees are not allowed to work under loads being lifted or moved by heavy equipment
- d. Employees are to stand away from equipment being loaded or unloaded
- e. Equipment operators or truck drivers may remain in equipment during loading/unloading if equipped with cab shield/canopy
- f. Barricades must be installed where necessary
- g. Hand or mechanical signals must be used as required
- h. Stop logs must be installed if danger of vehicles in trench
- i. Soil should be graded away from excavation
- j. Trenches left open overnight shall be fenced and barricaded

34. Hazard Atmosphere and Confined Spaces

- a. Employee are not permitted to work in hazardous/toxic atmospheres
- b. Not permitted in work areas with less than 19.5% oxygen
- c. Not permitted in work areas with combustible gas concentration greater than 10% of lower flammable limit
- d. Concentrations of hazardous substance that exceeds greater then specified in the Threshold Limit Values for airborne contaminants established by ACGIH
- e. Testing shall be conducted before/during employees enter trench
- f. Compliance with Confined Space Program is required for trenches with confided spaces

35. Benching, Sloping, Shoring, & Shielding Requirements

- a. All excavations or trenches 5 ft. or greater in depth shall be benched, stored, or sloped
- b. Excavation or trenches 20 feet deep or greater must have protective system designed by registered professional engineer
- c. A support system designed by a registered professional engineer at base of footing of foundation or wall
- d. Sidewalks and pavement shall not be undermined unless support system is provided

36. Confined Spaces Entry Procedures

- a. All confined spaces should be considered "Permit Required"
- b. Confined spaces are defined as enclosed areas that restrict access of personnel
- c. Consideration of Fire, explosions, impairment, death, suffocation due to lack of oxygen, etc.
- d. Work in confined spaces reviewed with BSO prior
- e. Recognition/Avoidance of hazards to be passed to Project Manager/Supervisor
- f. Trained for rescue and emergency procedures
- g. Trained for protective equipment and their use
- h. Trained in means and methods of access and egress
- i. Trained in instructions to specific hazards of work to be performed
- j. Forced mechanical ventilation must be provided prior and during operations to remove vapors, mists, dusts to provide adequate breathable air
- k. Confined atmosphere to be surveyed for oxygen and combustible gas prior to work
- l. Air monitoring shall be continuous
- m. The permit at end of section required for confined space entries; filled out by BSO/supervisor
- n. A buddy system, where no other job other than to hand tools
- o. A buddy can never leave his post
- p. In remote areas, two-way radios are required
- q. If change in conditions within or surrounded confined space work will be ceased at once
- r. Re-entry is prohibited until a survey is conducted of the area by BSO

37. Holes

- a. Holes in horizontal surfaces shall be protected by guardrails or covers
- b. Holes should not have any more than 2 sides with removable guardrails for passage of material
- c. Covers located in roadways/vehicular aisles shall support twice the maximum load of largest vehicle to cross
- d. All covers shall support twice the weight of employees/equipment and materials
- e. All covers shall be secure when installed to prevent displacement
- f. All covers shall be color-coded and/or marked "HOLE" or "COVER"
- g. Debris dropped through holes without chutes, shall be enclosed with barricades no less than 42 in high and 6ft back from projected edge
- h. Keep # and size of holes limited
- i. Removal is not permitted on lower level until debris ceases above

38. Alternative Fall Plan

- a. Must be individual fall plan for each structure to be demolished
- b. Includes name of project, location, date plan prepared/modified, prepared by and approved/supervised by

39. Rescue Plan

- a. A personal fall arrest system, written, to ensure person can be promptly rescued if they fall

40. Training Requirements for Safety Officers

- a. No employee is allowed where may be exposed to a fall hazard
- b. Know the nature of fall hazards in work area
- c. Use of Personal Arrest Fall System
- d. Procedures for erecting, maintaining, disassembling, and inspection fall protection system
- e. Use and operation of guardrail systems, controlled access zones, & warning line systems
- f. Role of employees in safety monitoring systems
- g. Role of employees for fall protection plan
- h. Standards in OSHA 1926 Subpart M of construction regulations
- i. A written certificate of training required

41. Fall Protection Systems-Controlled Access Zones (CAZ)

- a. CAZ identified by project manager
- b. Demarcation of CAZ, with signs, painted lines, wires, tapes, ropes, & chains
- c. Depth of CAZ should be at least 6 feet
- d. CAZ restricted to authorized entrants
- e. All workers permitted in CAZ shall be listed in Plan
- f. Ensure all protective elements be implemented prior to work
- g. A safety monitor, outside CAZ, instructs employees when not working safely

42. Removal Procedures for Roof Truss & Rafters

- a. Ensure secure footing (Cleaning boots of mud, etc.)
- b. Workers not involved with roof removal do not stand below or adjacent to roof opening or exterior
- c. Determine limits of area
- d. Competent person to order brief periods of suspension to allow other workers to pass
- e. Roof Sheathing removal operations to be suspended for wet weather or strong winds

43. Electrical Safety Requirements

- a. The path from circuits, structures, conduits, or enclosures to ground shall be permanent and continuous
- b. Have ample capacity to safely conduct current
- c. Exposed metal parts of portable and/or plug connected equipment shall be grounded
- d. Portable tool and appliances protected by double insulation

- e. Extension cords with portable tools shall be three-wire type and rated for heavy duty
- f. All 120 volt, 15 & 20 amp female outlets shall be protected by a ground fault circuit interrupter (GFCI)
- g. Use of permanent 120 volt, 15 & 20 amp outlets, GFCI protected is permitted
- h. GFCI receptacles on site shall be tested monthly
- i. Each cord set, attachment cap, plug etc, should be visually inspected every day for defects
- j. Damaged equipment shall be immediately removed until replaced or repaired
- k. The tool supervisor shall not make available or permit the use of equipment if it is not in adequate condition
- l. Defective/damaged extension cords, tools, etc, shall be removed and reported to the BSO
- m. Project Manager and BSO shall be aware and comply with ISHA regulations when working near energized overhead powerlines
- n. Mechanical equipment have been de-energized and visibly grounded
- o. For line rated 50kV or below, minimum clearance between the lines and any equipment/machinery, shall be 10 feet
- p. Scaffolds shall not be moved any closer than 3 feet from insulated energized power line of less than 300 volts
- q. Scaffolds shall not be moved any closer than 10 feet from power line of less than 50,000 volts
- r. No employee may work where they could contact the electric power circuit unless employee is protected by de-energizing the circuit and grounding it

44. Hot Work Policy

- a. No hot work performed unless cleared by BSO
- b. Supervisors are responsible for notifying employee of purpose and intent of hot work
- c. Supervisors are responsible for inspections of hot work area
- d. Supervisors are responsible for Contacting Environmental Health and Safety
- e. Employees are responsible for understanding hot work policy
- f. Employees must comply with procedures defined within policy
- g. Project Manager is responsible for notifying supervisors of intent of hot work
- h. Project Manager shall make periodic inspections of hot work area
- i. Project Manager responsible for contacting Environmental
- j. BSO responsible for understanding hot work policy
- k. BSO must comply with procedures defined within policy
- l. BSO must review Hot work policy to ensure compliance
- m. BSO responsible for assisting training of affected employees

45. Hot Work Procedure

- a. Supervisor or Project manager shall obtain hot work okay from BSO
- b. If hot work involves open flame cutting, an alternative method shall be considered
- c. Hot work operators/fire watch are trained in the safe operation of their equipment
- d. Apparatus used for hot work is in good condition
- e. Hot work operators/fire watch understand emergency procedures in the event of fire/general emergency

- f. Fire protection and extinguishing equipment is property located on-site
- g. Operators are utilizing personal protective equipment
- h. Proposed work does not jeopardize health and safety of operators or others
- i. Any deactivation of prevent alarms must ensure reactivation of the system

46. Fire Watch

- a. Fire watch required when combustible materials are closer than 35 feet to point of hot work
- b. Watch required when combustible materials are more than 35 feet away but ignited easily by sparks
- c. Watch required when wall/floor openings within 35 feet radius expose combustible materials in adjacent areas, including concealed spaces
- d. Watch required when combustible material are adjacent to opposite sides of partitions, walls, etc and are likely to be ignited
- e. Fire watch shall be aware of inherent hazards
- f. Ensure safe conditions are maintained during hot work
- g. Has authority to stop hot work operations if unsafe conditions develop
- h. Have fire extinguisher equipment immediately available and personnel trained on how to use it
- i. Fire watch shall be maintained during all breaks and one hour after completion
- j. Hot work prohibited in presence of explosive atmosphere
- k. Hot work prohibited in areas with accumulation of combustible debris, dust, lint and oily deposits
- l. Prohibited in areas near storage of readily ignitable materials
- m. Hot work prohibited in confined space, until space has been inspected and determined safe
- n. Protective gloves, apron and or jacket made of material that is an insulator from heat
- o. Welder helmets equipped with proper filter plate and cover lenses
- p. Must wear respiratory protection
- q. Equipment and supplies shall be stored properly

47. Injuries/Exposures

- a. Situations shall be reported in accordance with Incident Reporting and Investigation

48. Hazard Communication

- a. Develop a labeling system for all material
- b. Obtain a Material Safety Data Sheet (MSDS)
- c. Supervisor is responsible for maintenance of a list of hazardous chemicals within project
- d. BSO shall ask EPSM for a copy of all MSDS and chemicals inventory prior to starting work
- e. No hazardous chemicals shall be on site without a MSDS sheet
- f. All New and present employees will be given information regarding requirements of the Hazard Communication Program
- g. Information and training include the symptoms of overexposure to chemicals

- h. How to determine the hazardous presence or release of a chemical
- i. Methods to reduce or prevent exposure to hazardous chemicals such a control procedures, work practices, and protective equipment
- j. Procedures to follow in the event of an exposure
- k. How to read all labels

- l. Employees have a right to receive a copy of any MSDS requested
- m. All chemical containers at the site must be labeled as to the contents, hazards involved, and name and address of manufacturer
- n. Hazardous Non-Routine tasks and nearby work can, employee will be given additional information and protective measures to complete task
- o. Project manager shall stop work if asbestos, PCB and/or other material is encountered
- p. Any lead based metal will be cold-cut with shears; no burning; no welding
- q. All unlabeled pipes, vessel, or containers have been informed to the hazardous material contained within by their foreman
- r. Project manager and BSO will review entire Hazard Communication Program and to make sure procedures meet the requirements in MSDS

49. Respiratory Protection

- a. Respiratory equipment may be used during intermittent emergency situations
- b. Shall not be considered a substitute for long-term engineering controls
- c. The type of respirator used be correct and approved for the hazard involved
- d. Respiratory Protection Program and medical and fit test shall be forwarded to BSO
- e. Written Operating Procedures
- f. Proper Selection
- g. Training and fitting
- h. Cleaning and disinfecting
- i. Inspection and maintenance
- j. Storage
- k. Work Area Surveillance
- l. Medical Examinations
- m. Program Evaluation
- n. Written operating procedures as to areas designated requiring the use of respirator
- o. Written the type of respirator to be used
- p. Where and how the respirators should be cleaned, stored, and how to obtain new parts

50. Instructions for Project Manager and Safety Officers

- a. Proper equipment selection and proper fit for each employee
- b. Approved equipment must always be used
- c. Respirator must meet minimum performance standards by MSHA and NIOSH
- d. Air supplied respirators have appropriate breathing air supply (minimum grade D)
- e. Obtain a close estimate of the airborne concentration of contaminant involved

51. Training or Respirator

- a. Discussion of airborne contaminant for which protection is desired
- b. Reasons for using respirators
- c. Construction, selection, criteria, operating principles and limitations of the respirator
- d. Instructions on procedures for checking the condition of the respirator, security and fit
- e. Instructions on cleaning, inspection, storage and maintenance of respirators
- f. Instructions and field training in emergencies and what to do if equipment malfunctions

52. Fit Testing

- a. -Supervisor shall forward documented Fit Test to the BSO prior to being permitted to work
- b. Fit tests are not required on positive pressure respirators
- c. There are two kinds of fit tests, Qualitative and Quantitative
- d. Qualitative testing is being subjected to a challenge agent while performing simple head movements and speaking
- e. Quantitative testing is being subjected to the challenge agent concentration in a booth
- f. High concentration of agent inside respirator indicates poor fit
- g. Positive and negative pressure checks should be performed each time

53. Cleaning/Inspection/Storage-Respirators

- a. Remove filters, cartridges, canisters, speaking diaphragms, demand and pressure-demand valve assemblies
- b. Wash assemblies in warm (120°max.) cleaner/sanitizer solution
- c. Stiff bristle brush (not wire) may be used to facilitate removal of dirt/foreign material
- d. Rinse assemblies in clean warm water
- e. Drain all water and air-dry respirators assemblies
- f. Clean and sanitize all reusable parts removed from respirator
- g. Hand wipe respirator assemblies, all parts, and all gaskets and valve sealing surfaces with damp, lint free cloth
- h. Inspect parts and replace any that are defective
- i. Reassemble parts on respirator
- j. Attach new filters, cartridges, and canisters to respirator
- k. Visually inspect and, where possible, test parts and respirator assemblies for proper function
- l. Place assembled respirators in appropriate containers for storage
- m. Stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, etc. NOT in lockers or tool boxes
- n. Respirators should be placed in plastic bags

54. Work Area Surveillance

- a. BSO shall measure the contaminant concentration whenever operation or process changes are made or detected

55. Medical Evaluations

- a. Medical examination to determine if he/she is able to wear respiratory protective equipment
 - *Conditions may prevent employee from wearing respirator if employee:
- b. Has diabetes, insipidus or mellitus
- c. Epilepsy, grand mal or petit mal
- d. Alcoholism
- e. Use of certain medications
- f. Punctured ear drums
- g. Skin sensitivities
- h. Impaired or non-existent sense of smell
- i. Emphysema
- j. Chronic pulmonary obstructive disease
- k. Bronchial asthma
- l. X-ray evidence of pneumoconiosis
- m. Coronary artery or cerebral blood vessel disease
- n. Severe or progressive hypertension
- o. Anemia, Pernicious
- p. Pneumomediastinum gap
- q. Cardiovascular disease
- r. Amputated body part
- s. Communication of sinus through upper jaw or oral cavity
- t. Breathing difficulty or claustrophobia cause by wearing a respirator
- u. Any other condition that a physician determines may place the employee at added physical risk

56. Voluntary Usage of Respirators

- a. Supervisors shall perform training per 29 CFR 1910.134 Appendix D
- b. Training shall be documented using the sign off sheet
- c. BSO shall monitor employee to make sure they are not having any physiological effect from wearing the respirator

57. Leave for pregnancy, childbirth, childcare and adoption

- a. Must be granted, upon request, leave of absence without pay, for up to seven month following delivery
- b. Adoption-will be granted for total up to seven months
- c. Absences for childcare and adoption purposes may be charged to vacation, overtime compensatory time or personal leave credits
- d. Use of leave credits does not extend the seven month period

58. Conclusions

- a. This manual is to assist in injury prevention and property protection on the project
- b. Providing highest level of safety

- c. Failure to comply can result in removal from project/payment being withheld
- d. All local, state, and federal guidelines include OSHA 1910 and 1926