**The Top 5 Respiratory Protection Issues Cited by OSHA in 2021**

The [list of the most cited OSHA standards](https://www.safetyandhealthmagazine.com/articles/21811-fall-protection-remains-atop-oshas-top-10-list-of-most-frequently-cited-violations) is out for 2021. As you may know, the list contains the same issues each year, usually just in a different order. Fall protection in construction is number one for the 11th year in a row. Hazard communication, usually towards the top of the list, surprisingly fell to 5th. Respiratory protection in general industry is the new overall number two for this year, and the top issue found in general industry.

So what are the issues most commonly cited for respiratory protection?

**1. 1910.134(e)(1) Medical Evaluations**

The most commonly cited relates to medical evaluations. Employers are to provide medical evaluations to determine the employee’s ability to use a respirator, before fit-testing and before they’re required to use the respirator in the workplace.

There is a medical questionnaire in Appendix C that you can choose to use, or you can choose to do a medical examination instead as long as the examination contains the same information found in the questionnaire. As an employer, you cannot look at the answers, and must provide employees with instructions on how to deliver or send the completed questionnaire to a physician or other licensed health care professional (PLHCP) for review.

Seasonal and temporary workers are required to have evaluations if their jobs require respirator use. Those workers who voluntary choose to wear dust masks (after you’ve determined there is no hazard in that area) are not required to have medical evaluations but must be made aware of the limitations of the dust mask as outlined in Appendix D of the standard.

**2. 1910.134(f)(2) Fit Testing**

Employers are to ensure employees wearing tight-fitting facepiece respirators are fit-tested:

1. Before use
2. Whenever a different respiratory facepiece is used (size, model, make, style)
3. Annually

Fit-testing is done qualitatively or quantitatively. Qualitative fit-testing uses items such as saccharine, Bittrex, banana oil or irritant smoke to determine protection. It relies on the person being tested’s ability to sense odor or irritants. Qualitative fit testing is only for half-face, full-face and N95 filtering facepiece respirators that have an Assigned Protection Factor (APF) of 10.

Quantitative respirator fit-testing uses a machine to measure pressure loss inside the mask or to count quantities of particles to calculate a fit factor. Quantitative testing is considered more accurate than qualitative fit-testing. Quantitative fit-testing must be conducted for respirators requiring an APF over 10. Full-face tight fitting respirators that are quantitatively tested have an APF of 50 .

**3. 1910.134(c)(1) Written Program**

In any workplace where there is respirator use, there needs to be a written program with site-specific procedures. The program is to be administered by a “suitably trained” program administrator. Whenever conditions in the workplace changes, the program should be updated. If you have people voluntarily wearing respirators, you still are required to have a program.

The program is to contain the following elements:

* Procedures for selecting respirators;
* Medical evaluations of employees required to use respirators;
* Fit testing procedures for tight-fitting respirators;
* Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
* Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
* Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
* Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
* Training of employees in the proper use of respirators, including putting on (donning) and removing them (doffing), any limitations on their use, and their maintenance; and
* Procedures for regularly evaluating the effectiveness of the program.

Annual reviews are not required, but reviews should be done periodically in accordance with the complexity and factors of your hazards, types of respirators used, and worker experience using them. Workplace changes are an automatic trigger for updates. For instance, if your workplace conditions change such as different exposure amounts or types, if you change respirators, or change fit-testing protocols, an update would be necessary.

In your review, employees should be questioned on factors affecting their performance such as difficulty in breathing, limits of motion, impacts to vision/hearing/communication, discomfort and if they have any concerns on effectiveness.

**4. 1910.134(k)(1) Training**

Employers need to make sure employees can demonstrate their knowledge of the following:

* Why the respirator is necessary
* How proper fit, usage and maintenance can compromise its protective effect
* Limitations and capabilities of a respirator
* How to use it in an emergency
* What to do if it malfunctions
* How to inspect, don, doff and check its seals
* How to properly clean, disinfect and store the equipment
* How to recognize medical signs and symptoms that may limit or prevent the respirator’s effectiveness; and,
* The general requirements of this section of the standard.

Employees need to be trained BEFORE using a respirator in the workplace, and ANNUALLY (within 12 months). Training needs to include the above elements each year. Besides the annual training requirement, retraining is required whenever there are changes in the workplace, when you see the employee has inadequacies in his/her knowledge or use of it, or any other case in which it looks like the employee would benefit from retraining.

To determine the employee’s understanding, you can ask the employee in writing or orally about the information and observe their hands-on use of respirators.

**5. 1910.134(d)(1) General Requirements**

The general requirements are the general rules for selection of respirators. That is, it is the employer’s duty to:

1. **Select appropriate respirators** based on the hazards to which they’re exposed and the workplace factors that will affect them such as temperature/humidity, need for unimpeded vision, need for communication with other workers, usage in conjunction with other PPE, amount of time to be worn, etc.
2. Select **NIOSH-certified respirators** and use them in compliance with the conditions of that certification. So don’t use parts for one brand on a different brand of respirators and for airline respirators use in accordance with operating procedures and hose specifications.
3. **Evaluate the respiratory hazards of the workplace**. This includes quantifying exposures, identifying the contaminant’s chemical and physical form. You must do an analysis to determine if respirators are needed. If it’s not possible to identity or estimate, the atmosphere should be considered to be IDLH, or immediately dangerous to life or health.
4. **Select respirators in a sufficient number of models and sizes** so that they are acceptable and correctly fit. Not everyone’s face is the same. We’ve found in fit-testing that not only are there size variances between people, but some just cannot successfully fit test in certain brands and shapes of respirators.

**Need Help? Have Questions?**

After reviewing these 5, does your program have all of these bases covered?

If you have questions, or need help shoring up your respiratory protection program, iSi is here to help! We can write or review your written programs, help you determine workplace exposures, help with sampling plans, help with respirator selection, and conduct training. [Contact us](https://isienvironmental.com/contact-us/) today!

OSHA has updated its rules for annual electronic reporting of injuries and illnesses to account for worker privacy. The new final rule was published in the Federal Register on January 25, 2019 and is **effective February 25, 2019**.

**What Has Changed?**

**Employers with more than 250 employees were to begin including OSHA Forms 300 and 301 with their electronic submittals starting in 2019.** These forms name the particular workers affected, along with the body parts injured, date of birth, date of hire, address, and treatment. This information could have made it to the online, searchable database, compromising sensitive employee information.

**The new rule removes this requirement in order to protect worker privacy.** Employers with more than 250 employees are still required to submit their 300As.

In addition, **OSHA is requiring employers to submit their Employer Identification Numbers with their electronic submissions.** OSHA feels this new requirement will help better organize and track submissions and avoid duplications.

**Below is a revised table of requirements.** Are you required to submit electronically? If you have questions, please contact us!

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **If your company has…** | **250+ Employees** | **20-249 Employees (Covered Industries)** | **20-249 Employees**  **(Not Covered Industries)** | **19 or Fewer Employees** |
| **Who Reports Electronically?** | All | There are 66 categories of establishments included.  (Link is below) | None | None |
| **Which Records to Submit to OSHA?** | Form 300A Only | Form 300A Only | None | None |
| **Electronic Data Due to OSHA** | March 2 for Previous Year’s Records | March 2 for Previous Year’s Records | None | None |
| **How Do You Calculate Number of Employees?** | Count the maximum you had AT ANY TIME throughout the previous year.  So, for example, if you have 250 employees for only 2 months of the previous year, you’d still fall in the 250+ category even if you were below it for the other 10 months. | | | |
| **Do Part-Time, Seasonal and Temp Workers Count in the Final Total?** | Yes | Yes | Yes | Yes |
| **Data for Previous Year Still Posted at Workplace Feb 1-Apr 30?** | Yes | Yes | Yes | Yes (10-19 employees) |
| **Required to Maintain Forms 300 and 301 Onsite** | Yes | Yes | Yes | Yes (10-19 employees) |

[Click here for a list of NAICS Codes covered industries applicable to this regulation.](https://isienvironmental.com/wp-content/uploads/2017/07/Electronic_Recordkeeping_Companies.pdf)

**Air Regulations in the Hazardous Waste Standards? Taking a Look at the RCRA Air Standards**

In our [blog article about EPA’s compliance initiatives](https://isienvironmental.com/epa-compliance-priorities-blog/), EPA said a number of facilities were not complying with RCRA air requirements and as a result, inspectors were being directed to look at these items in inspections. So, what are the RCRA air requirements, and who is affected by them?

RCRA air regulations pertain to organic air emissions from equipment used for hazardous waste. There are 3 different standards – Subparts AA, BB and CC – and each are specific to the type of equipment being used.

Subpart AA deals with process vents used for treating/recycling hazardous waste, Subpart BB deals with equipment leaks and Subpart CC deals with emissions from tanks, containers and [surface impoundments](https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=2a77c749315031342fd6c14af611b65a&term_occur=999&term_src=Title:40:Chapter:I:Subchapter:I:Part:265:Subpart:B:265.19).

**Subpart AA**

Some equipment examples for this subpart would include vents associated with solvent extraction, air stripping, steam stripping, thin-film evaporation, distillation and fractionation.

**To be regulated**, the unit must:

* Be permitted or in interim status;
* Be a recycling unit at a facility that has a RCRA permit or is operating under an interim status due to some other hazardous waste management operation (such as a RCRA-permitted storage tank); or,
* Be a 90-day container or tank.

The hazardous waste being treated or recycled must contain at least 10 ppmw total organics.

**Exemptions:**

* The recycling unit is at a facility that has no RCRA permit and is not operating under an interim status; or,
* Your facility is equipped and operating with air emissions controls complying with other air regulations (CAA, NSPS, NESHAP, MACT) in 40 CFR Parts 60, 61 or 63 for each affected process vent.

**Requirements:**

If this regulation applies to you, then you’re required to first determine the emissions from all of those vents and if it’s less than 3 lbs/hour and 3.1 tons/year, no controls are required. However, if it’s that rate or more, your facility must either find a way to reduce those emissions or use control devices that will reduce total organic emissions from all affected events by 95%.

**Subpart BB**

This subpart is about equipment found in hazardous waste pipelines or the ancillary equipment associated with a hazardous waste tank. These can be valves, pumps, compressors, pressure-relief devices, flanges, connectors, sampling connection systems or open-ended lines/valves.

**To be regulated**, the equipment must:

* Be part of a permitted or in interim status unit;
* Be part of a recycling unit at a facility that has a RCRA permit or is operating under an interim status due to some other hazardous waste management operation (such as a RCRA-permitted storage tank); or,
* Be part of a 90-day container or tank.

The hazardous waste in the equipment must contain at least 10% total organics by weight.

**Exemptions:**

* The recycling unit is at a facility that has no RCRA permit and is not operating under an interim status;
* The equipment is operated, monitored or repaired in accordance with air regulations (CAA, NSPS, NESHAP, MACT) for fugitive equipment leaks from 40 CFR Part 60, 61 or 63; or,
* The equipment is in vacuum service because leaks would go back into the equipment.

**Requirements:**

If this regulation applies to your company, you’ll be required to implement an LDAR program (Leak Detection and Repair) for the applicable equipment. LDAR programs are a significant effort and have their own design standards, tagging, and recordkeeping, reporting, inspection and monitoring requirements.

**Subpart CC**

This regulation applies to hazardous waste tanks, containers and surface impoundments (lagoons, holding/storage pits, ponds, etc).

**To be regulated**, the equipment must:

* Be part of a permitted or in interim status unit; or,
* Be a 90-day container or tank.

Units must receive hazardous waste containing greater than or equal to 500 ppmw volatile organics at the *point of waste origination*. For generators, the point of origination is the same as the point of generation. For TSDF facilities, the point of origination is where the owner accepts delivery/takes possession of hazardous waste.

**Exemptions:**

* Satellite accumulation containers;
* Small Quantity Generators’ 180/270 day tanks and containers;
* Containers with a design capacity of less than or equal to 26.4 gallons;
* Units used solely for the onsite treatment or storage of remediation wastes under state or RCRA corrective action or CERCLA;
* Units not subject to substantive RCRA standards, including wastewater treatment units, elementary neutralization units, immediate response units and totally enclosed treatment units;
* Units that receive radioactive mixed wastes; or,
* Equipment with air emissions controls in accordance with air regulations (CAA, NSPS, NESHAP, MACT) in 40 CFR Part 60, 61 or 63.

**Requirements:**

If this regulation applies to your company, you’ll first need to determine the volatile organic concentration for every hazardous waste managed in one of these units. If the concentration of every waste entering a unit is less than 500 ppmw, no emission controls will be required.

Even if your tank contains less than 500 ppmw, if anywhere along the way to the tank from point of origination is 500 ppmw or more, you’ll need the emissions controls.

*Tanks*

For low vapor pressure wastes, a tank with a fixed roof with no gaps or openings between the roof edge and tank wall can be used. For all other wastes, there are several options (floating roof, fixed roof with control device, enclosure vented to enclosed combustion device or pressurized tank). Control devices can be a flare or carbon adsorbers.

*Containers*

There are 3 levels of standards, based on container size. Level 1 is low vapor pressure wastes in small capacity containers (26-121 gal), 55 gal drums, roll off boxes for soil, and containers greater than 121 gal. For this level you must use DOT containers, they must have tight fitting covers with no visible holes or gaps, and they need to be closed.

Level 2 is for more volatile wastes in greater than 121 gal containers. An example would be a tank truck with spent solvent. Here, use DOT containers, they must be closed having no detectable organic emissions, and you must prove they’re vapor tight on an annual basis.

Level 3 is where hazardous waste is being stabilized. They must be connected to a closed vent system to a control device and meet special requirements for being managed in an enclosure.

*Surface Impoundments*

Emission controls for surface impoundments must have an air-supported or rigid cover that’s vented to a control device or be an HDPE or similar floating membrane with a minimum thickness of 2.5 mm.

**Does This Apply to You?**

iSi can help you determine if you’re subject to RCRA Air regulations, and which Subpart you’re required to follow. [Contact us today](https://isienvironmental.com/pricing/) for a price quote!

**PSM Compliance Audits**

**How Often Are They Needed? What’s Involved?**

Companies that fall under Process Safety Management (PSM) requirements because of their highly hazardous chemicals are required to recertify that you have done an evaluation of your compliance. [*For more about what PSM is,* [*check out our blog “What is PSM?”*](https://isienvironmental.com/what-is-psm-blog/)]

Compliance evaluations must occur at least once every 3 years. Companies must certify that PSM compliance has been evaluated in order to verify that procedures and practices being followed are adequate and are being followed.

The audit needs to be planned ahead of time with plans for ensuring compliance, documenting findings, determining corrective actions and including field inspections of safety and health conditions and practices.

**The Team**

Audit team members should be chosen based on their experience, knowledge, training and familiarization with the standard. Smaller companies may be able to have teams as small as one, but larger companies like refineries with 3 or 4 processes may need a team of 5-6 people over the course of 1-2 weeks. You can use your own personnel, personnel from other plants, or consultants to conduct the audit.

**The Audit**

The audit should:

* Make sure all PSM requirements are being followed;
* Identify elements that need special attention;
* Review pertinent documentation with samples large enough to ensure the audit results accurately reflect compliance;
* Inspect the physical facilities to observe actual practices;
* Interview all levels of plant personnel to determine awareness/knowledge of PSM requirements, safety procedures, and emergency procedures; and,
* Record any deficiencies.

**Report of Findings**

Following the audit, a report of findings should document the results, and that should be signed by a responsible manager. This becomes the official certification. If you use an outside consultant as the auditor, the employer still needs to make that certification, not the consultant.

The report should include facts and information to support the audit did indeed determine and review compliance. It should document corrective actions required and document any findings so that they can be compared to future audits to determine trends. Additional observations discovered can also be included.

Deficiencies should be described, given milestones, tracked and assigned to affected personnel, then periodically followed up on. Anything that was logged as a deficiency where no corrective action was taken needs to have explanations on why it wasn’t followed up on.

**Recordkeeping**

Companies are required to keep their two most recent compliance reports on file. You do not need to turn those in to OSHA, just keep them on file and available for inspection. Some companies choose to destroy earlier reports because they tend to list more findings on them. Some companies also choose to do their reevaluations every 1-2 years for that reason as well.

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Need help with PSM? Contact iSi today! We can help you get compliant with your 14 PSM elements, conduct or participate in your recertification audit, or help you correct findings.

<https://isienvironmental.com/osha-considering-changes-and-updates-to-the-psm-standard-blog/>

<https://isienvironmental.com/thanksgiving-safety-blog/>

* Hazard communication – 1910.1200(e)
* [Lockout/tagout](http://en.wikipedia.org/wiki/Lockout-Tagout) (energy control procedures)- 1910.147(c)(4)
* Respiratory protection – 1910.134(c)(1)
* [Process safety management](http://en.wikipedia.org/wiki/Process_Safety_Management) – 1910.119(d),(e)(1),(f)(1),(j)(1),(l)(1),(m)(4),(o)(3)
* [Personal protective equipment](http://en.wikipedia.org/wiki/Personal_protective_equipment) (hazard assessment) – 1910.132(d)
* Bloodborne pathogens – 1910.1030(c)
* [Emergency](http://en.wikipedia.org/wiki/Emergency_service) action plans – 1910.38(b)
* Permit-required confined spaces – 1910.146(c)(4)
* [Hazardous waste](http://en.wikipedia.org/wiki/Hazardous_waste) operations and emergency response – 1910.120(b)(1),(l)(1),(p)(1),(q)(1)
* [Electrical safety](http://en.wikipedia.org/wiki/Electric_shock) (assured equipment grounding conductor program and [lockout/tagout](http://en.wikipedia.org/wiki/Lockout-Tagout) procedures for work with energized parts) – 1910.304(b)(3)(ii) and 1910.333(b)(2)(i)
* [Fire prevention](http://en.wikipedia.org/wiki/Fire_prevention) plans – 1910.39(b)
* Laboratory standard (chemical hygiene plan) – 1910.1450(e)
* [Commercial diving](http://en.wikipedia.org/wiki/Professional_diving) operations (safe practices manual) – 1910.420
* Powered platforms for building maintenance (emergency action plan) – 1910.66(e)(9)
* Silica
* Hexavalent Chromium
* Beryllium

OSHA Targets Poultry Industry for New Regional   
Emphasis Program

OSHA has launched a year-long Regional Emphasis Program targeting poultry processing facilities in OSHA Regions IV and VI. This includes the states of Georgia, Alabama, Mississippi, Florida, Oklahoma, Arkansas, Louisiana, Texas and those worksites under federal jurisdiction in New Mexico. OSHA is strongly encouraging state plan states in these targeted regions to adopt a similar emphasis. This would add facilities in the states of North Carolina, South Carolina, Kentucky, Tennessee and all of New Mexico.

OSHA is giving the industry the first three months of the program to become compliant with OSHA regulations, and then after that, OSHA will begin targeted, comprehensive safety and health inspections. This puts the enforcement at a start date near the end of January 2016.

Compliance officers have been instructed to include and familiarize themselves with the following areas for these comprehensive inspections:

* Machine guarding and lockout/tagout including hazards, current conditions, and preventative maintenance plan
* Electrical equipment and potential electrical hazards
* Recordkeeping of injuries and illnesses, worker’s compensation records, first aid records and presence of a plan/program for ergonomics to prevent/control injuries
* Process safety management (PSM) national emphasis program items with special attention to ammonia and chlorine. If PSM requirements look like they may be applicable, this may trigger an additional, separate PSM inspection.
* Confined spaces
* Access to employee medical records
* Hazard communication
* Hexavalent chromium including potential for exposure and all exposure air monitoring data.
* Bloodborne pathogens
* Combustible dust national emphasis program applicability
* PPE
* Biological hazards (campylobacter, psittacosis, histoplasmosis, others) and sanitation
* Other hazards on a case by case basis including:
  + Noise and hearing conservation program
  + Chemical and physical hazards from carbon dioxide (dry ice operations), carbon monoxide (powered industrial vehicles and engines), maintenance operations, food preparation, water treatment and non-PSM refrigerant chemicals
  + Heat and cold stress
  + Pedestrian hazards in the truck receiving and shipping areas
  + Slip, trip and fall hazards on walking and working surfaces
  + Toilet and sanitary facilities and worker’s access to them

The reason the industry has been targeted is because of its high injury and illness rates. OSHA’s research shows poultry industry workers are 6 times more likely to get sick on the job and 2 times more likely to become injured than other private sector workers.

If the facility has had a comprehensive inspection within the past 3 years, OSHA will review that inspection and determine if an additional inspection under this emphasis will need to be conducted.

The Regional Emphasis Program is expected to last until October 25, 2016 unless it’s extended.

To read the full emphasis program, including more details about what the inspections will include, click on your OSHA region below.

[Region IV](http://isienvironmental.com/wp-content/uploads/2015/11/PoultryREP_OSHARegion-IV.pdf) [Region VI](http://isienvironmental.com/wp-content/uploads/2015/11/PoultryREP_OSHARegionVI.pdf)

Protecting Your Property Transaction Liabilities

**What is a Phase I Environmental Site Assessment?**

If your company plans to purchase, manage, lease, or sell a piece of commercial property, the phrase “Phase I Environmental Site Assessment” is bound to come up, and if it doesn’t, it should, because it’s key to limiting your risk with the transaction.

**What’s a Phase I ESA?**

Phase I Environmental Site Assessments (Phase I ESAs) are studies that research the current and historical uses of a property. The intent of the study is to assess current or historical property uses impacting the property that could pose a threat to the environment and/or human health. This research will help give insight if there’s a potential that you’ll be responsible for environmental issues found onsite.

**Who Needs to Conduct a Phase I ESA?**

* Property Owners
* Property Sellers
* Banks/Lenders
* Property Buyers

**What Federal Regulations Impact a Phase I ESA?**

EPA’s CERCLA (Comprehensive Environmental Response, Compensation and Liability Act), aka Superfund, gives the federal government the ability to respond to releases, or threated releases of hazardous substances. It also gives them the ability to pursue polluters (responsible parties) or potential polluters (potentially responsible parties) for the cleanup of contaminated sites. As a property buyer or seller, it’s up to you to do some due diligence and make an “all appropriate inquiry” into the environmental conditions of the site.

When you make that all appropriate inquiry, there are certain defenses allowed to protect yourself from CERCLA liability.

The ***Bona Fide Prospective Purchaser Defense*** allows a purchaser to first evaluate the property’s environmental conditions and assess potential liability for any contamination, then purchase the property with knowledge of hazardous substance contamination without incurring liability as an owner or operator.

The ***Innocent Landowner Defense*** is allowed if a purchaser “did not know and had no reason to know” that contamination existed on the property at the time the purchaser acquired the property, if a government entity acquires a property by escheat, involuntary acquisition, or eminent domain, or if a person acquired the facility by inheritance or bequest.

For the ***Contiguous Property Owner Defense***, the property must be contiguous to a property that is or may be contaminated by hazardous substances from other property that is not owned by that person.

Another defense, the ***Brownfield Defense***, can be used when a property is already assumed to have contamination, and it becomes a part of EPA's Brownfields Program for economic redevelopment.

**What’s Included in a Phase I ESA?**

All appropriate inquiries must be conducted by an environmental professional and they include:

***Site Visit***

The professional will conduct a reconnaissance of the site to determine if there is a likely presence of hazardous substances or petroleum products, and if there is an indication a release or threatened release could have occurred. The property’s exterior and interior structures are observed at this time.

***Historical Research***

Research of property records back to the property’s first development, or 1940, whichever is earlier is conducted. This research includes inspecting historical aerial photographs, topographical maps, Sanborn Fire Insurance maps, street/city directory searches, building permits, planning records, title searches, and government records review.

***Geology and Hydrogeology Studies – The environmental professional will look:***

* Soil types to determine the composition, texture, hydrologic group, and its drainage class.
* Physical setting/topography of the property.
* Groundwater depth and flow direction studies identify hydrologically upgradient source areas and risk of vapor intrusion and vapor encroachment.

Vapor intrusion occurs when volatile chemicals migrate from contamination in the soil or groundwater up into a building’s interior space. Vapor intrusion can be caused by contamination on-site or off-site from a property. A contamination plume can originate from an off-site source and migrate onto the property and underneath buildings. Vapor encroachment is a broader concern when compared to vapor instruction. Vapor encroachment is focused on the potential for vapors to exist within a building.

***Interviews and Other Documents***

The environmental professional will interview tenants, the current owner(s), and previous tenants/owners, and state and local regulators. Any additional provided documentation such as previous Phase I ESAs, spill reports, state or local contamination reports, etc. will be reviewed.

***Other Reviews***

While an environmental professional is already conducting this research, the entity requesting a Phase I ESA may also want them to look at other sources for potential environmental issues. The following items can also be included in a Phase I ESA, but are not a part of the EPA CERCLA regulation for sources of liability.

* Asbestos-Containing Building Materials
* Biological Agents
* Cultural and Historic Resources
* Ecological Resources
* Health and Safety Issues
* Indoor Air Quality (unrelated to vapor intrusion)
* Industrial Hygiene
* Lead-Based Paint
* Lead in Drinking Water
* Mold
* Radon
* EPA/OSHA/DOT Hazardous Materials Regulatory Compliance Items
* Wetlands

**Limitations of a Phase I ESA**

Phase I ESAs are valid for 180 days. Between 180 days and a year, the interviews, title search, government records research and visual inspection will need to be updated. Any Phase I ESA over one year old is consider invalid and outdated and will need to be redone.

Phase I ESAs can reveal the likelihood of existing and/or past evidence of contamination, but they

* Cannot prove that hazards are present;
* Cannot ensure hazards or pollutants will not be discovered at a later date; and,
* Cannot ensure landowners can avoid all responsibility.

Phase II Environmental Assessments (Phase II ESAs) involve further environmental sampling, including sampling of soil, water, groundwater and/or soil vapor to help better determine if contaminants are present. If a recognized environmental condition is found from the Phase I ESA study, a recommendation for Phase II ESAs will often be suggested.

If you have questions about Phase I ESAs, or would like pricing to conduct one for your next property transaction, [**please contact us**](https://isienvironmental.com/contact-us/)**!**

Imagine this scene: your company just purchased a prime piece of property and has proceeded to establish your business on that land. Your company uses few chemicals and those you do use are carefully managed. Ten years later, chemicals commonly used to degrease parts appear in private wells in the area. Upon investigation, it’s found that 30 years ago, a previous owner of the land operated a printing plant on the site. This company used hundreds of gallons of the same chemical to clean their presses and they disposed of the remaining chemical on the ground. The groundwater is now contaminated. You didn’t put it there, but you own the land. And the printing company is out of business.

Who’s going to clean all of the wells? According to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), or Superfund, your company, as the landowner, can be held responsible for the cleanup. EPA will either order your company and other potentially responsible parties on the chain of ownership to clean the site or they will clean it themselves and sue you for reimbursement. What defense does your company have?

**What is a Phase I Environmental Site Assessment?**

Because current owners can be held liable for environmental damage on their land, even when they didn’t cause it, lenders and insurance providers will usually protect their assets by requiring an environmental inspection of the property prior to its purchase. Commonly called a Phase I Environmental Site Assessment (ESA), this inspection provides the “due diligence” necessary to assess the environmental conditions of the property with reasonable confidence.

**Innocent Landowner Defense**

Superfund only recognizes three defenses to a landowner’s liability in such a case: an act of God, an act of war, and the “innocent landowner” defense. An innocent landowner is one who used “due diligence” to determine if there was a potential for contamination on the site before buying it, and the Phase I will meet this requirement.

However, for a Phase I to have any meaning in establishing an innocent landowner defense, it must be produced following guidelines established by the American Society of Testing Materials (ASTM). The guidelines are voluntary, but they are a consensus among lenders of what research is necessary to provide a satisfactory evaluation of a property’s environmental condition.

**What’s Included in a Phase I ESA?**

* **History of Site Usage**: A title search, interviews of past owners and neighbors, map analysis, historical document analysis should be conducted.
* **Review of Public Records**: A search of federal, state and local information to identify nearby regulated facilities that could impact the property (e.g., underground storage tanks, hazardous materials generation amounts) should be evaluated.
* Site Reconnaissance of Property and Adjacent Properties: A walkthrough site inspection should be completed to identify recognized environmental hazards such as disposal sites, leaks, storage tanks, water or gas wells, and sumps or the obvious presence of asbestos, lead, or transformers that contain PCBs. In addition to the physical inspection, the topography, geology, and hydrology of the site and surrounding region should be researched and evaluated to determine the potential for a neighbor’s contamination to migrate to the property.

**What Kind of Transactions Require a Phase I ESA?**

There are a number of instances where a Phase I ESA can be very beneficial:

* **Purchasing Property**: A Phase I can alert the buyer to possible contamination before the purchase of property. It can also serve as documentation of the condition of the property at time of purchase.
* **Leasing Property (As the Tenant)**: A Phase I can serve as documentation of the environmental condition of the property before the lease begins and after lease termination. Without the assessment, the tenant may be held liable for contamination caused by past or future tenants.
* **Leasing Property (As the Landlord)**: A Phase I should be conducted before and after a tenant occupies the property. Prior to leasing, the Phase I can serve as a baseline of the condition of the property, and after the tenant leaves, the Phase I can properly document and address any environmental issues left by the tenant.
* **Disposal of Property**: A Phase I can serve as a baseline of the condition of the property at time of disposal. This will help protect the disposer from future liability.
* **Other Transactions**: Use Phase Is for land swaps, right-of-way purchases, easements, and special use permits (i.e., public recreation, grazing, mining, etc.)

Are you planning a real estate transaction in the next few months? Let iSi conduct your Phase I ESA for you. Contact us today!

**EPA Rule Adds PFAS Chemicals to the TRI Report**

EPA has added a list of per- and polyfluoroalkyl substances (PFAS) to the list of chemicals which need to be tracked annually on your EPA Toxic Release Inventory (TRI) report. **This rule is effective 1/1/2020**, so you’ll need to start tracking and collecting data on their usage immediately.

PFAS chemicals (aka PFOS and PFOA because these are the most common PFAS chemicals) have been widely used in industrial processes and can be found in many consumer products including firefighting foam, pizza boxes, cookware, paints and polishes, electronics manufacturing, fuel additives and more.

The new rule was signed into law through the National Defense Authorization Act on December 20, 2019. EPA is also currently soliciting comments until February 3, 2020 on which other PFAS chemicals should be evaluated, how to list them and what the appropriate threshholds should be. EPA says that reporting threshholds will likely be “lower than the usual statuatory threshholds (25,000 lbs. for manufacturing/processing and 10,000 lbs. for otherwise using)”.

Because PFAS chemicals come in so many shapes and sizes and in so many industries and consumer products, it’s thought that an alarmingly high percentage of people have been exposed to them. Contaminated drinking water is the most documented source, but food, house dust, and workplace exposure are amongst the top as well. In communities with contaminated drinking water, human health effects found include higher cholesterol, increased uric acid, lower birth weight, lower response to vaccines, diabetes, and cancer.

As a result, dealing with PFAS issues has become an EPA focus. There have already been other efforts by EPA recently to develop methods and guidance for drinking water monitoring and lab testing, development of a PFAS Management Plan, conducting toxicity reviews, development of recommendations for addressing groundwater already contaminated with PFAS, and other actions.

If you need assistance with determining if this new requirement affects your facility, we can help. [Contact us today](https://isienvironmental.com/index.php/contact-us/)!

Table and/or Buttons Graphic:

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| --- | --- |
| Here’s the List of the PFAS Chemicals You Need to Start Tracking How | PFAS Chemicals Added to TRI |
| List of NAICS Manufacturing Codes Who May Potentially Be Affected | NAICS Codes Potentially Affected |
| What is a TRI Report? | What’s TRI? |

<https://www.regulations.gov/document?D=EPA-HQ-TRI-2019-0375-0001>.

TRI Chemicals to be tracked: <https://www.epa.gov/toxics-release-inventory-tri-program/list-pfas-added-tri-ndaa>

What is a TRI? [Check out our article which explains it](https://isienvironmental.com/index.php/tri-form-r-blog/) in greater detail.