FINAL Preliminary Assessment Report Army Aviation Support Facility #3 Tennessee

Perfluorooctane-Sulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) Impacted Sites ARNG Installations, Nationwide

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Prepared for:



Army National Guard Headquarter 111 S. George Mason Drive Arlington, VA 22204



U.S. Army Corps of Engineers, Baltimore District 2 Hopkins Plaza Baltimore, MD 21201

Prepared by:

AECOM 12420 Milestone Center Drive, Suite 150 Germantown, MD 20876 aecom.com

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Acronyms and Abbreviations

AECOM Technical Services, Inc.

AASF Army Aviation Support Facility

AFFF aqueous film forming foam

amsl above mean sea level

AOI area of interest

ARNG Army National Guard

ARNG-ILE Army National Guard Environmental Programs Division

bgs Below ground surface

CERCLA Comprehensive Environmental Response, Compensation, and Liability

Act

CSM conceptual site model CW5 Chief Warrant Officer 5

FTA fire training area

IED Installations and Environment Division MCFD Madison County Fire Department

MSAFD McKellar-Sipes Airport Fire Department

PA Preliminary Assessment

PFAS per- and poly-fluoroalkyl substances

PFOA perfluorooctanoic acid

PFOS perfluorooctanesulfonic acid

SI Site Inspection SGT Sergeant

TNARNG Tennessee Army National Guard

US United States

USACE United States Army Corps of Engineers

USEPA United States Environmental Protection Agency

WWTP waste water treatment plant

Executive Summary

The United States (US) Army Corps of Engineers (USACE) Baltimore District on behalf of the Army National Guard (ARNG)-Installations & Environment Division (IED), Cleanup Branch contracted AECOM Technical Services, Inc. (AECOM) to perform *Preliminary Assessments* (*PAs*) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) Impacted Sites at ARNG Facilities Nationwide. The ARNG is assessing potential effects on human health related to processes at facilities that used per- and poly-fluoroalkyl substances (PFAS), primarily in the form of aqueous film forming foam (AFFF) released as part of firefighting activities, although other PFAS sources are possible.

AECOM completed a PA for PFAS at Army Aviation Support Facility # 3 (AASF#3) in Madison County, Tennessee, to assess potential PFAS release areas and exposure pathways to receptors. The performance of this PA included the following tasks:

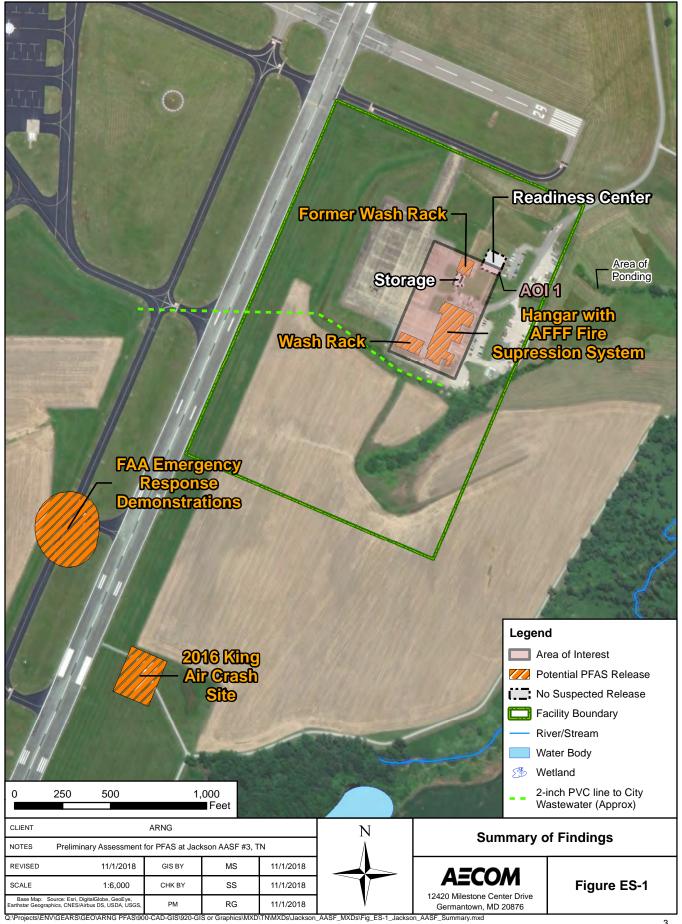
- Reviewed data resources to obtain information relevant to suspected PFAS releases
- Conducted a 1-day site visit on 23 May 2018
- Interviewed personnel associated with AASF#3 activities during the site visit including AASF#3 Logistics Management Officer/Chief Warrant Officer 5 (CW5) and AASF#3 Fire Marshal Sergeant (SGT) (both interviewees on site 2003-2018)
- Completed visual site inspections at known or suspected PFAS release locations and documented with photographs
- Interviewed adjacent facility personnel after the site visit, including Fire Chief of McKellar-Sipes Airport Fire Department (since 1998) and Fire Chief of Madison County Fire Department (since 1983)
- Developed a conceptual site model (CSM) to outline the potential release, pathway, and receptors of PFAS for AASF #3

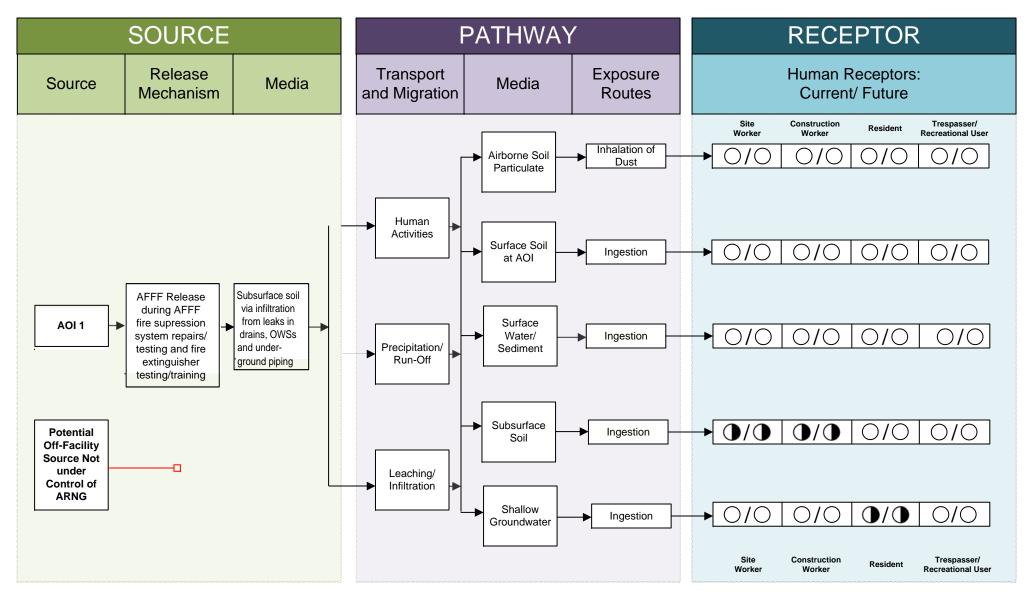
Multiple suspected PFAS releases were identified during the PA as described below. Due to their close proximity, these releases constitute a single area of interest (AOI) identified at AASF#3. The AOI is shown in **Figure ES-1** and summarized below.

Area of Interest	Name	Used by	Release Dates
AOI 1	Release during replacement of torn AFFF storage tank bladder (approximately 300 gallons), discharged to hangar floor drain/oil water separator (OWS)	TNARNG	2006
	Releases during annual AFFF suppression system testing (approximately 50 gallons total), discharged to hangar floor drain/OWS	TNARNG	2003-2015
	Releases during AFFF fire extinguisher testing/training (hand held and mobile carts) at the former wash rack and current wash rack building; discharged to respective drains/OWSs	TNARNG	1997-2003 (former wash rack) 2003-2016 (current wash rack building)

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Based on the reported AFFF release at this AOI, there is potential for exposure to PFAS contamination in subsurface soil to site and construction workers via inhalation and in groundwater to residents via ingestion. The CSM for VTS-S is shown on **Figure ES-2**.





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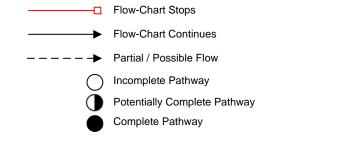


Figure ES-2

Conceptual Site Model

AOI 1 AFFF Release in Hangar or Current/Former Wash Racks at AASF# 3

1. Introduction

1.1 Authority and Purpose

The United States (US) Army Corps of Engineers (USACE) Baltimore District on behalf of the Army National Guard (ARNG)-Installations & Environment Division (IED), Cleanup Branch contracted AECOM Technical Services, Inc. (AECOM) to perform *Preliminary Assessments* (*PAs*) and Site Inspections (SIs) for Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) Impacted Sites at ARNG Facilities Nationwide under Contract Number W912DR-12-D-0014, Task Order W912DR17F0192, issued 11 August 2017, and Modification 01 issued 30 September 2017. The ARNG is assessing potential effects on human health related to processes at their facilities that used per- and poly-fluoroalkyl substances (PFAS), primarily releases of aqueous film forming foam (AFFF) although other sources of PFAS are possible. In addition, the ARNG is assessing businesses or operations adjacent to the ARNG facility (not under the control of ARNG) that could potentially be responsible for a PFAS release.

PFAS are classified as emerging environmental contaminants that are garnering increasing regulatory interest due to their potential risks to human health and the environment. The regulatory framework at both federal and state levels continues to evolve. The U.S. Environmental Protection Agency (USEPA) issued Drinking Water Health Advisories for PFOA and PFOS in May 2016, but there are currently no promulgated national standards regulating PFAS in drinking water. In the absence of federal maximum contaminant levels, some states have adopted their own drinking water standards for PFAS.

This report presents findings of a PA for PFAS at Army Aviation Support Facility (AASF) #3 in Jackson, Madison County, Tennessee, in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, the National Oil and Hazardous Substances Pollution Contingency Plan (40 Code of Federal Regulations Part 300), and USACE requirements and guidance.

This PA documents the locations where PFAS are currently stored and reportedly released into the environment at AASF#3. The term PFAS will be used throughout this report to encompass all PFAS chemicals being evaluated, including PFOS and PFOA, which are key components of AFFF.

1.2 Preliminary Assessment Methods

The performance of this PA included the following tasks:

- Reviewed data resources to obtain information relevant to suspected PFAS releases
- Conducted a 1-day site visit on 23 May 2018
- Interviewed personnel associated with AASF#3 activities during the site visit including AASF#3 Logistics Management Officer/Chief Warrant Officer 5 (CW5) and AASF#3 Fire Marshal Sergeant (SGT) (both interviewees on site 2003-2018).
- Completed visual site inspections at known or suspected PFAS release locations and documented with photographs
- Interviewed adjacent facility personnel after the site visit, including Fire Chief of McKellar-Sipes Airport Fire Department (since 1998) and Fire Chief of Madison County Fire Department (since 1983)

 Developed a conceptual site model (CSM) to outline the potential release, pathway, and receptors of PFAS for AASF #3

1.3 Report Organization

This report has been prepared in accordance with the USEPA *Guidance for Performing Preliminary Assessments under CERCLA* (USEPA, 1991). The report sections and descriptions of each are:

- **Section 1 Introduction:** identifies the project purpose and authority and describes the facility location, environmental setting, and methods used to complete the PA
- **Section 2 Fire Training Areas:** describes the potential or suspected fire training areas (FTAs) at the facility identified during the site visit
- Section 3 Non-Fire Training Areas: describes other locations of potential or suspected PFAS releases at the facility identified during the site visit
- Section 4 Emergency Response Areas: describes areas of suspected or potential AFFF release at the facility, specifically in response to emergency situations
- Section 5 Adjacent Sources: describes sources of PFAS release adjacent to the facility that are not under the control of ARNG
- Section 6 Conceptual Site Model: describes the pathways of PFAS transport and receptors at the AOI
- **Section 7 Conclusions:** summarizes the data findings and presents the conclusions of the PA
- Section 8 References: provides the references used to develop this document
- Appendix A Data Resources
- Appendix B Preliminary Assessment Documentation
- Appendix C Photographic Log

1.4 Facility Location and Description

AASF#3, home to the 230th Air Cavalry Squadron of the Tennessee Army National Guard (TNARNG), is located at the McKellar-Sipes Regional Airport (**Figure 1-1**) in Madison County Tennessee, approximately 6 miles west of the City of Jackson, and approximately 71 miles northeast of Memphis. As noted in the lease agreement (**Appendix A**), the TNARNG leases 59.29 acres of the airport property from the City of Jackson and County of Madison. The airfield was originally established in 1941 as a military training center (McKellar-Sipes Regional Airport, 2018). The lease agreement references the parcel as previously conveyed to the County of Madison and the City of Jackson, however the date of conversion from military to commercial use (likely post-WWII) is not readily available. According to facility personnel, the TNARNG has occupied the site since 1999, with no prior tenants. Historical aerial photos (EDR, 2018 included in **Appendix** A) show infrastructure at the current AASF#3 location as early as 1997.

1.5 Facility Environmental Setting

AASF#3 lies within the Gulf Coastal Plain physiographic province within the eastern portion of the Mississippi Embayment in Central Southwestern Tennessee. The facility lies west of Johnson Creek a tributary that flows north to the South Fork of the Forked Deer River.

1.5.1 Geology

The geology at AASF#3 is dominated by the Mississippi Embayment, which is a broad structural syncline (trough) that plunges southward along an axis that approximates the Mississippi River (Parks, et al., 1993). AASF#3 is underlain mostly by Quaternary-age loess (USGS, 2018). These deposits are gray to brown massive clayey and sandy silt (USDA, 1978) and reach maximum thicknesses of 100 feet along bluffs of the Mississippi River and thin to the west (Hardeman, 1966). Underlying the loess deposits is the Memphis Sand, described below.

1.5.2 Hydrogeology

The principal aquifer underlying AASF#3 is the Memphis Sand aquifer. The Memphis Sand primarily consists of a thick body of sand that contains subordinate lenses or beds of clay or silt at various horizons. Recharge to the aquifer comes from infiltration of precipitation that falls on broad area of western Tennessee (Parks and Carmichael, 1990). The Sand can range from 400 to 900 feet thick. Where the Memphis Sand aquifer is confined, the potentiometric surface gently slopes (and groundwater flows) to the west (Parks and Carmichael, 1990). Locally shallow groundwater flow is likely to follow topography which slopes downward to the northeast (**Figure 1-2**).

1.5.3 Hydrology

Surface water in the vicinity of AASF#3 drains east toward Johnson Creek, which flows north to the South Fork of the Forked Deer River (**Figure 1-3**). Local surface drainage at AASF#3 is conveyed to the south and east toward shallow ditches that generally align with fencing. The ditches drain to a ponded area east and outside of the AASF#3 boundary.

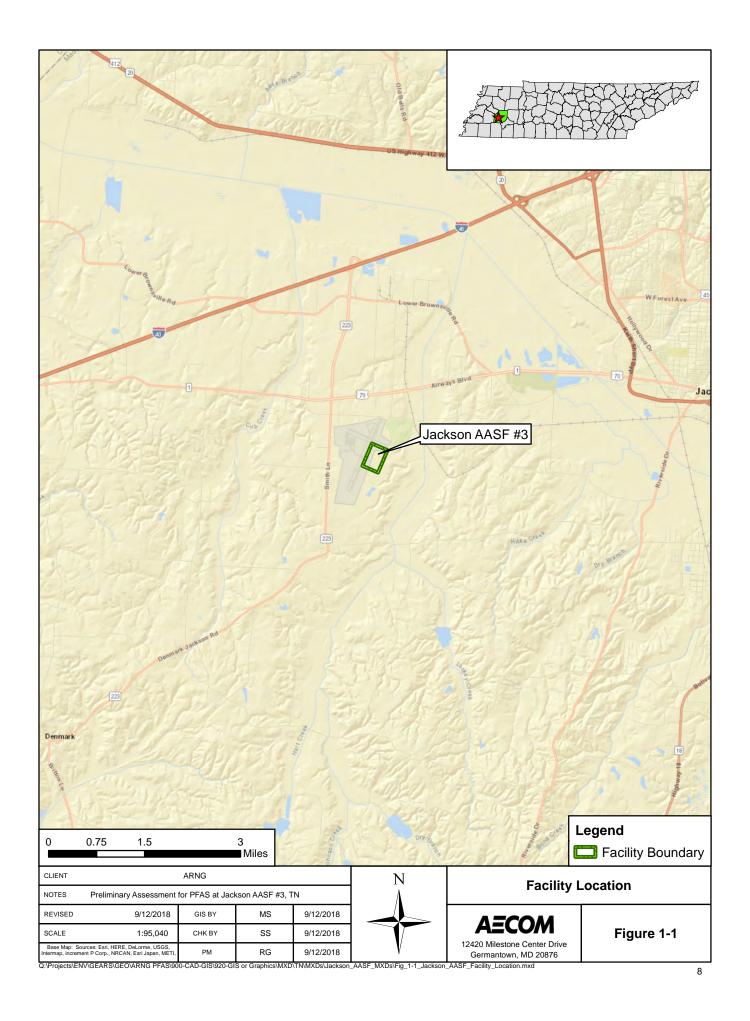
As noted in the attached Environmental Data Research (EDR) report (**Appendix A**), a query of Tennessee Department of Environment and Conservation's water well database identified 27 water supply wells: nine residential, nine commercial or industrial, two agricultural and seven unspecified. Wells are reportedly located between one-eighth and one mile to the north and west of AASF#3 (**Figure 1-2**) and range in depth from 28 to 200 feet.

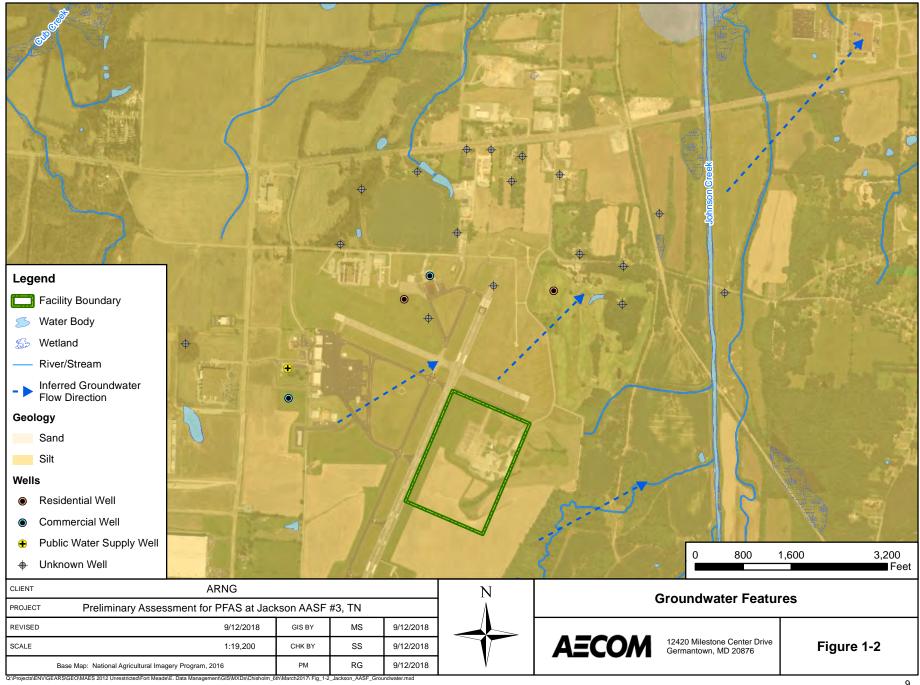
1.5.4 Climate

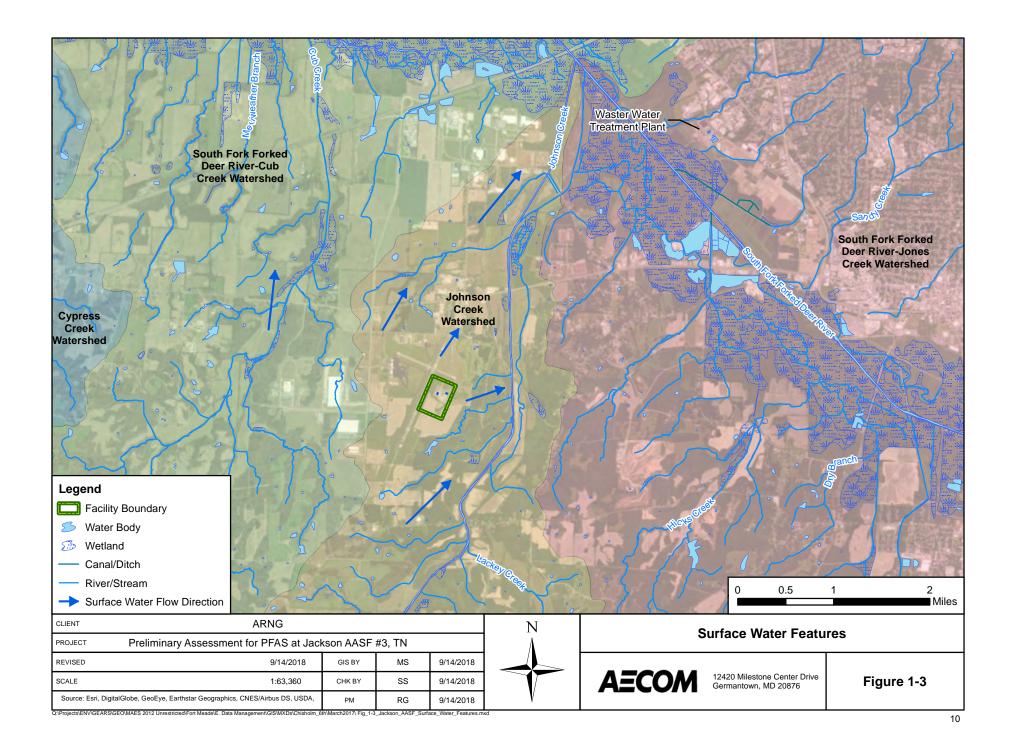
Data from McKellar-Sipes Regional Airport indicate that the mean annual temperature between 1981 and 2010 was 59.8 degrees Fahrenheit (°F) (National Oceanic and Atmospheric Administration [NOAA], 2018). The warmest months are July and August, with normal daily mean temperatures of 79.5°F and 78.6°F, respectively. January is the coldest month, with a mean temperature of 38.2°F. Average annual precipitation measured from 1981 to 2010 at McKellar-Sipes Regional Airport was 53.27 inches. Rainfall is heaviest during the spring and winter with seasonal average rainfalls of 15.30 inches and 13.59 inches respectively; August and September are the driest months. Average monthly precipitation ranges from 3.00 inches in August to 5.69 inches in May.

1.5.5 Current and Future Land Use

The McKellar-Sipes Regional Airport is a public use airport, with general aviation services located on the west side and AASF #3 on the east side. A variety of residential, commercial/industrial and agricultural parcels surround the northern and western sides of the airport property; areas east and south are predominately agricultural. No future changes to the current use were noted during personnel interviews.







2. Fire Training Areas

With the exception of hand held and mobile cart extinguisher testing/training in the wash rack building and former wash rack area (described in **Sections 3.5** and **3.6**, respectively), AASF#3 personnel confirmed there are no designated FTAs at the facility.

3. Non-Fire Training Areas

The AASF#3 facilities consists of the flight line, several buildings (hangar, wash rack, Readiness Center, and storage) and a former wash rack area (pad). These non-fire training areas were investigated during the PA. These and other areas are described below and shown on **Figure 3-1**, with photographs provided in **Appendix C**.

Floor drains inside AASF#3 buildings convey wastewater to two lift stations then to the McKellar-Sipes Airport wastewater collection system. The wastewater conveyance piping runs inside an east-west fenceline on the south side of the facility to the west northwest, across the runway to the primary airport facilities.

3.1 Flight Line

The AASF#3 flight line, a large concrete pad used to stage helicopters, is located in the central portion of the facility and west of the hangar building. Non-AFFF mobile firefighting carts are available on the flight line in the case of an emergency. According to PA interviews, AFFF has never been dispensed on the flight line. Fuel is transported to the flight line by truck from storage tanks managed at the main Airport facility across the runway, west of AASF#3. Ponding occurs on both east and west sides of the flight line during heavy rain events. Precipitation drains to perimeter grassy areas, then infiltrates and/or drains to a swale on the east side of the flight line that conveys flow eastward via open ditch to a ponded area east of the facility boundary. The geographic coordinates for the AASF#3 flight line are 35°35'56.54"N and 88°54'45.85"W.

3.2 Hangar

The hangar is located in the central portion of the facility, adjacent to the eastern side of the flight line. It is used for helicopter maintenance, storage, and training. The current hangar was built in October 2003, in the same location as the previous (original) hangar which was destroyed by a tornado. Historical aerial photos (EDR, 2018), indicate the original hangar was constructed between 1992 and 1997. TNARNG staff report the original hangar was not equipped with a fire suppression system; only dry chemical fire extinguishers were installed. The current hangar contains an AFFF fire suppression system with dispensing nozzles installed in the hangar ceiling connected via piping to two 300-gallon AFFF above ground storage tanks (ASTs) inside the hangar.

In 2006, the AFFF system's former service contractor replaced one of the AST bladders, which TNARNG staff believes required draining (releasing) the contents of the AST, approximately 300 gallons of 3 percent AFFF solution, and then refilling the tank. At the time of the site visit, both ASTs contained AFFF (one 300 gallon AST is reported to contain the original AFFF contents and the other 300-gallon AST has AFFF contents refilled in 2006.)

Additionally, TNARNG staff reported the likely releases of unspecified quantities of AFFF during annual testing from 2003 to 2015, also performed by the system's former service contractor. Specifically, the AST tank valves were opened and allowed to drain for some minutes prior to collecting a sample of the concentrate for analysis. In all instances (AST maintenance and annual testing), waste AFFF was likely released to the hangar floor drains.

The hangar floor drains are connected to underground conveyance piping which is routed through an oil water separator (OWS) south of the hangar before continuing westward and across the runway, eventually joining the main airport facility wastewater collection system. The airport is served by the Jackson Energy Authority municipal waste water treatment plant

(WWTP) located at 191 Miller Avenue, approximately 4 miles northeast of AASF#3 (see **Figure 1-3**). The geographic coordinates are 35°38'18.97"N and 88°51'47.95"W. Suspected AFFF releases to floor drains in the AASF#3 hangar building (during AFFF system maintenance and testing) may have been conveyed to the WWTP via the Airport wastewater collection system.

TNARNG staff noted the AFFF hangar fire suppression system would only be deployed in an emergency (i.e., not tested); system re-design/retrofit has been requested by staff, to prevent damage to the hangar electrical system/lighting if deployed due to the current AFFF system design, with ceiling nozzles installed above the electrical equipment and the corrosive nature of AFFF.

AASF#3 emergency protocols currently calls for use of NOVEC™ 1230 mobile carts (yellow-green) (acquired in 2016). NOVEC™ 1230 is a non-PFAS fluid that reportedly has no impact on electronic components. The geographic coordinates for the hangar are 35°35'53.12"N and 88°54'43.02"W.

3.3 Readiness Center

The Readiness Center is located north of the hangar and contains offices primarily used for training. To the best of their knowledge, TNARNG staff who have been working on site since 2003 reported that AFFF has never been stored in the building. Geographic coordinates for the Readiness Center are: 35°35'56.83"N and 88°54'39.93"W.

3.4 Storage Building

The storage building is located north of the hangar. Various materials are stored inside the building, including eleven 5-gallon sealed containers of Ansulite 3 percent AFFF #54783 (see safety data sheet included in Appendix A). The 5-gallon buckets were likely used to refill the Ansul AFFF mobile carts (e.g., after the original solution expiration date or after AFFF usage during testing/training). To the best of their knowledge, TNARNG staff who had been working on site since 2003 reported no releases of any materials in this area. Geographic coordinates for the storage building are: 35°35'55.90"N and 88°54'42.23"W.

3.5 Wash Rack Building

The wash rack building is located southwest of the hangar, and on the southern end of the flight line. The wash rack building was constructed in 2003 and does not have an installed fire suppression system. Fluids drain to a central floor drain, through the OWS and conveyed to the airport wastewater collection system. Hand held and mobile cart fire extinguisher testing/training is conducted in this building (with Ansul AFFF mobile carts from 2003 to 2016 and with NOVEC™ 1230 mobile carts since 2016). Until their disposition is possible, Ansul AFFF mobile carts (taken out-of-service in 2016) are stored in the wash rack building and not used. Personnel stated the Ansul AFFF carts are planned to be removed after a contract for their disposal is awarded. To the best of their knowledge, TNARNG staff who had been working on site since 2003 reported no other releases in this area. The geographic coordinates for the wash rack building are 35°35′52.61″N and 88°54′45.18″W.

3.6 Former Wash Rack Area

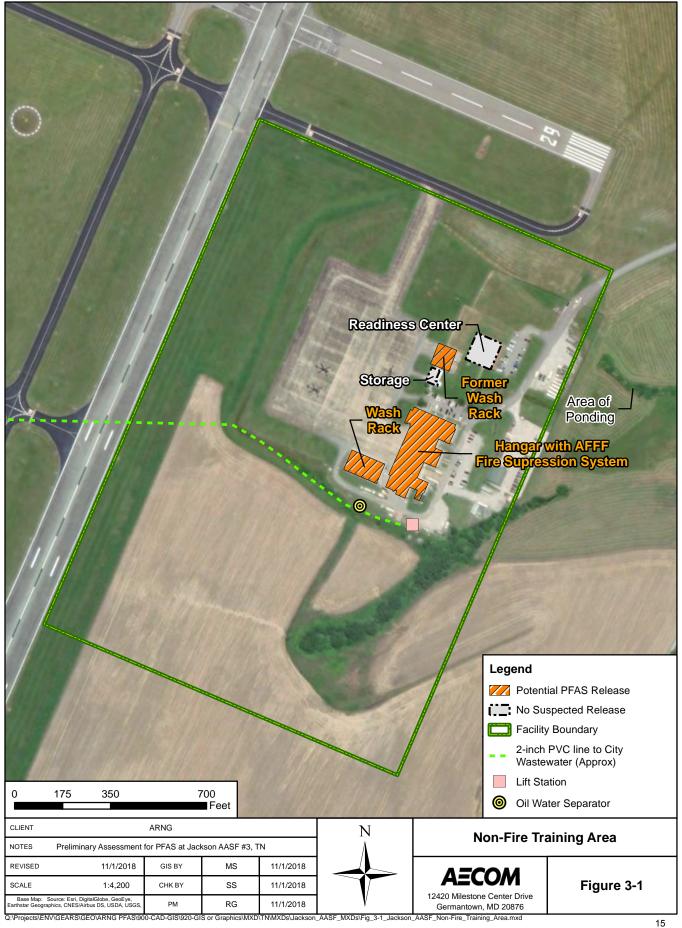
The former wash rack area is located north of the storage building. Prior to 2003, equipment cleaning was conducted in this open, concrete paved area. Hand held and mobile cart fire extinguisher testing/training was also conducted in this area. All fluids drained to an OWS

connected to the airport wastewater collection system. The former wash rack OWS has since been removed and the void filled with rocks. To the best of their knowledge, TNARNG staff who had been working on site since 2003 reported no other releases in this area. Geographic coordinates for the former wash rack are: 35°35'56.51"N and 88°54'41.83"W.

3.7 Landfills

During PA interviews, TNARNG staff noted no current or former landfills located at or in the vicinity of AASF#3.

Landfills are not usually a primary release area of PFAS, but materials disposed in landfills may create a secondary source of contamination. Such materials, to name a few, may include sludge from a WWTP that processes PFAS-laden water, used AFFF storage containers, or products associated with waterproofing uniforms or boots.



4. Emergency Response Areas

To the best of their knowledge TNARNG personnel who have been working on site since 2003 reported no past emergency responses.

5. Adjacent Sources

McKellar-Sipes Regional Airport is a public use airport, with most facilities located west and north across the runways from AASF#3. TNARNG staff reported responses to emergencies at the Airport, including AASF#3, are provided by the McKellar-Sipes Airport Fire Department (MSAFD). The MSAFD Fire Chief, affiliated with the Department since 1998 and in role of Fire Chief since 2014, reported storage of 6% AFFF in 5-gallon buckets inside the station (located at 308 Grady Montgomery Dr. see **Figure 5-1**) and in two fire trucks parked inside the station. The large truck holds 500 gallons of AFFF and the small truck holds 150 gallons. The truck tanks are filled by pouring directly from the 5-gallon buckets. Floor drains in the station convey fluids to the City of Jackson's wastewater system. The Chief indicated he purchases AFFF on the internet based on least expensive price, with the most recent purchase of Buckeye brand AFFF approximately 2 years ago.

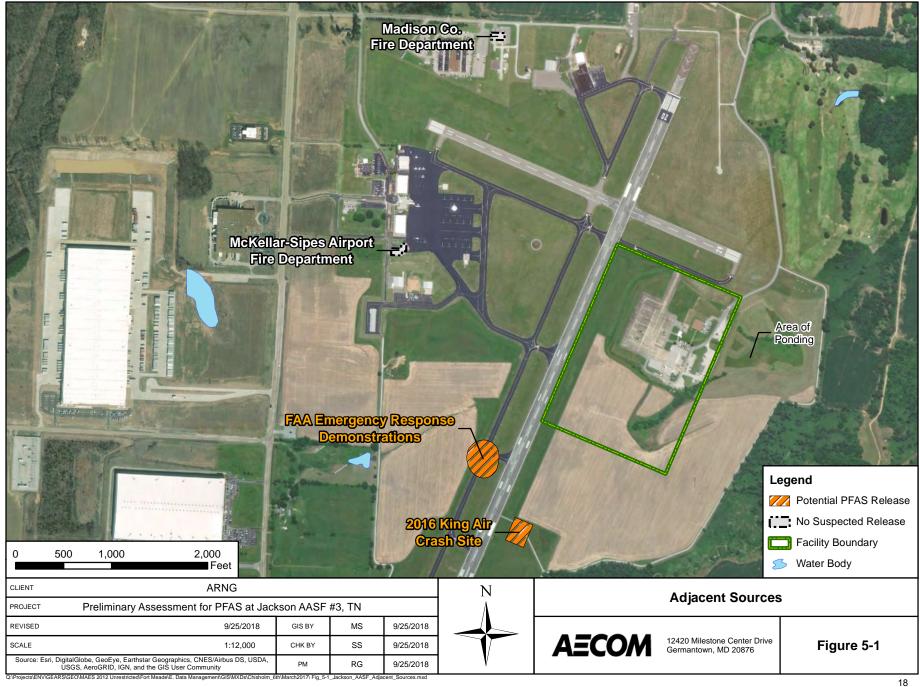
The MSAFD Fire Chief reported one use of AFFF during an emergency response on 21 September 2016 where 55-gallons of AFFF was used to extinguish a fire that occurred when the landing gear of a King Air aircraft failed and the aircraft crashed into the airport weather station located southeast of the runway (approximate area shown on **Figure 5-1**), approximately 600-800 yards from AASF#3. The incident report provided by the Fire Chief is included in **Appendix A**.

The MSAFD Fire Chief also noted small releases of AFFF occur during annual Federal Aviation Administration (FAA)-required demonstrations of emergency response readiness. During the exercises a small quantity (5 gallons) is dispersed from the fire truck, typically staged adjacent to the runway, mid-field (approximate area shown on **Figure 5-1**); the dispensed AFFF is allowed to runoff the pavement and infiltrate the soil.

The MSAFD does not maintain a FTA; annual personnel live fire training is conducted in Millington TN. Nozzle testing is conducted with water only. The MSAFD Fire Chief indicated their Department has an informal agreement to provide emergency response to AASF#3, with backup support provided the Madison County Fire Department (MCFD) which leases airport property from the City of Jackson. To the best of his knowledge, during his 20-year tenure (1998-2018) AFFF has never been disposed on- or off-site, and there has never been leaks or spills of AFFF and no buildings at the airport are equipped with AFFF fire suppression systems.

The MCFD Fire Chief was interviewed after the site visit. He indicated 3% or 6% AFFF is maintained exclusively in 5-gallon buckets, which are stored in their administration building (shown on **Figure 5-1**), located adjacent to the McKellar-Sipes airport control tower north of the main runway, and in 5-gallon buckets stored on 20 pumper trucks distributed across 17 stations in the County. The trucks are equipped to respond with water, dry chemical, and AFFF. When needed, water is streamed with AFFF drawn directly by eductors from the AFFF 5-gallon bucket stored on the truck. Live fire training (by MCFD staff only) is conducted adjacent to the administration building and uses propane and water exclusively. Detergent (soap) only is used for nozzle testing to simulate foam.

To the best of his knowledge there have been no AFFF spills, leaks or other releases during his tenure with the MCFD which began in 1983. He believes MCFD purchases AFFF through a Memphis TN vendor (EVS Emergency Vehicle Specialists); and excess AFFF is donated to local volunteer fire departments. He has no knowledge of formal agreements for responding to emergencies at AASF#3; however he confirmed McKellar-Sipes Airport Fire Department has primary responsibility for emergency response at the airport and MCFD provides backup support as needed.



6. Conceptual Site Model

Based on the PA findings, due to their close proximity, the AFFF release areas associated with the AASF#3 hangar building, wash rack building and former wash rack were identified as a single AOI. This section describes the CSM components developed for this AOI. The CSM identifies the three components necessary for a potentially complete exposure pathway: (1) source, (2) pathway, and (3) receptor. If any of these elements are missing, the pathway is considered incomplete. The AOI is shown on **Figure 6-1** and the CSM is presented on **Figure 6-2**.

In general, the potential PFAS exposure pathways are ingestion and inhalation. Dermal contact is not considered to be a potential exposure pathway as studies have shown very limited absorption of PFAS through the skin (National Ground Water Association [NGWA], 2018). Receptors at AASF#3 include site workers, construction workers and residents outside the facility boundary. As described below, the CSM for the hangar release AOI indicates the specific receptors that could potentially be exposed to PFAS.

6.1 AOI 1

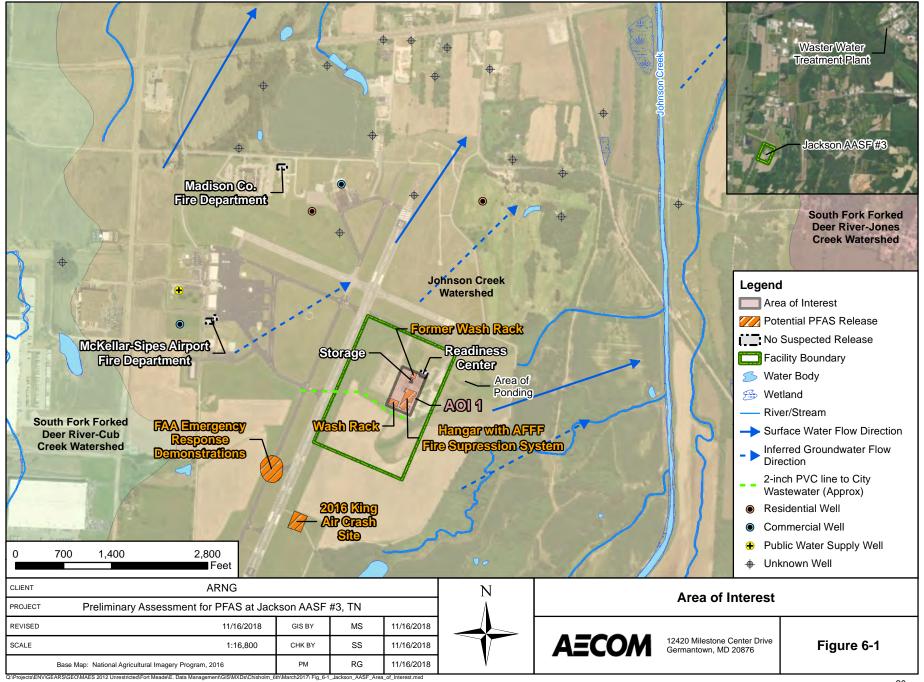
A 2006 release of approximately 300 gallons of AFFF is suspected during an AFFF AST bladder replacement, with additional unspecified quantities released in the past during annual fire suppression system testing (2003-2015). All releases occurred inside the AASF#3 hangar building.

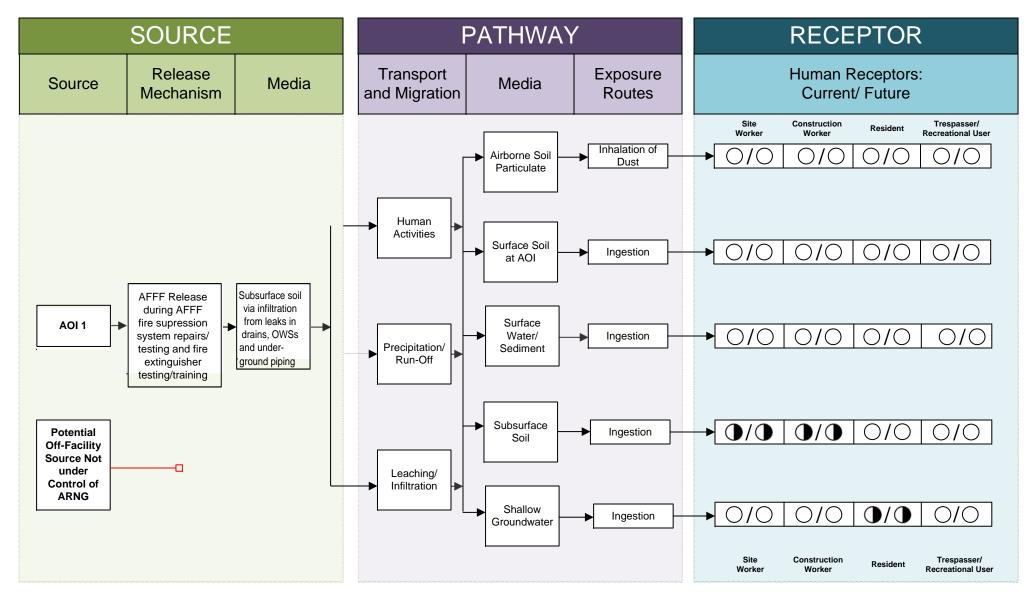
Releases may have occurred during AFFF fire extinguisher testing/training (hand held and mobile carts) conducted at the former wash rack (1997-2003) and current wash rack building (2003-2016).

Releases at the hangar and wash racks would have been conveyed to their respective drains and OWSs, and then to the airport wastewater collection system, and possibly ultimately discharged to the Jackson Energy Authority WWTP. Based on the nature of the release (during maintenance/routine testing/training) it appears unlikely AFFF would have been discharged to the ground surface outside of the hangar building or wash racks, where surface drainage is conveyed to an area of ponding outside the AASF#3 boundary to the east (**Figure 6-1**).

PFAS contamination may have infiltrated to subsurface soil via leaks in drains, OWSs or underground wastewater conveyance piping beneath the hangar and wash racks, or leaks along such piping from the facility to the municipal WWTP. Under such scenarios ground disturbing activities in these areas could result in site and construction worker exposure to PFAS via inhalation of dust or ingestion of exposed subsurface soil.

Potential PFAS contamination may have further infiltrated to shallow groundwater, which is anticipated to follow topography and flow northeast toward the South Fork of the Forked Deer River. Some groundwater could migrate to water supply wells identified within one mile of the installation. Reported well depths range from 28 to 200 feet below ground surface with uses noted as residential, commercial, industrial, agricultural, and unspecified (EDR, 2018). Therefore, the ingestion exposure pathway for groundwater is potentially complete.





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7. Conclusions

Due to the close proximity of PFAS releases, one AOI was identified at AASF#3 during the PA (Figure 7-1).

7.1 Findings

Based on interviews with current AASF personnel, reported historical AFFF releases are associated with the AASF#3 hangar fire suppression system and AFFF fire extinguisher testing/training at wash racks (former and current building). These indicate the potential for PFAS contamination in subsurface soil and groundwater to intercept one or more receptors. No evidence of other accidental or incidental spills or leaks from AFFF storage containers/areas were identified during the VSI, including excess stored AFFF concentrate located in the storage building. The remaining buildings associated with the AASF are not equipped with or store AFFF. These findings are summarized below.

Area of Interest	Name	Used by	Release Dates
AOI 1	Release during replacement of torn AFFF storage tank bladder (approximately 300 gallons), discharged to hangar floor drain/OWS	TNARNG	2006
	Releases during annual AFFF suppression system testing (approximately 50 gallons total), discharged to hangar floor drain/OWS	TNARNG	2003-2015
	Releases during AFFF fire extinguisher testing/training (hand held and mobile carts) at the former wash rack and current wash rack building, discharged to respective drains/OWSs	TNARNG	1997-2003 (former wash rack) 2003-2016 (current wash rack building)

7.2 Uncertainties

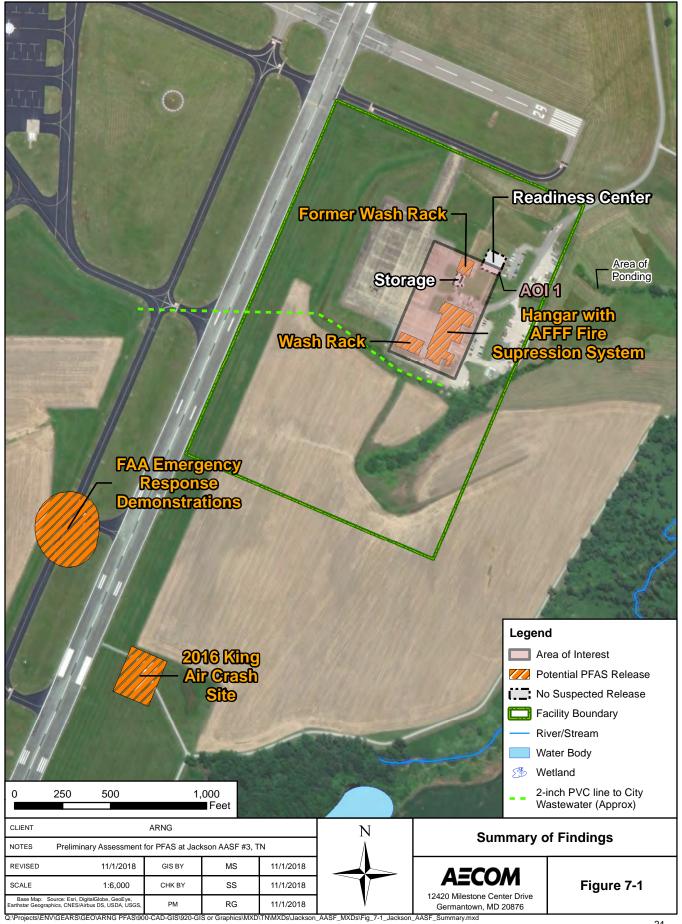
Available information sources were investigated during this PA to determine the potential for PFAS-containing materials to have been present, used, or released at the facility. Historically, documentation of PFAS use was not required because PFAS were considered benign. Therefore, records were not typically kept by the facility or available during the PA on the use of PFAS in training, firefighting, or other non-traditional activities, or on its disposition.

The conclusions of this PA are predominantly based on the information provided during interviews with personnel who had direct knowledge of PFAS use at the facility. Sometimes the provided information was incomplete. Gathered information has a degree of uncertainty due to the absence of written documentation, the limited number of personnel with direct knowledge due to staffing changes, the time passed since PFAS was first used (1969 to present), and a reliance on personal recollection. Inaccuracies may arise in potential PFAS release locations, dates of release, volume of releases, and the concentration of AFFF used. There is also a possibility the PA has missed a source of PFAS, as the science of how PFAS may enter the environment continually evolves.

In order to minimize the level of uncertainty, readily available data regarding the use and storage of PFAS were reviewed, current personnel were interviewed, multiple persons were interviewed for the same potential source area, and potential source areas were visually inspected.

The following table summarizes the uncertainties associated with the PA:

Area of Interest	Source of Uncertainty
AOI 1	AASF#3 staff do not have first-hand knowledge of the quantity and specifics of the releases because a third-party (contractor) performed the AFFF AST bladder replacement (2006) and annual testing (2003-2015) that are likely potential PFAS releases. Therefore, it is speculative whether fluids were fully contained within the hangar and routed to the hangar floor drains. The nature of suspected AFFF fire extinguisher testing/training
	conducted before 2003 is not known.
	Known historical use of AFFF on the adjoining airport property is limited to the 20-year tenure of MSAFD personnel interviewed (1998-2018).



8. References

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Appendix A Data Resources

Data resources will be provided separately on CD. Data resources for Army Aviation Support Facility#3 include:

AASF#3 Permits and Lease Information

• 1992 AASF#3 Lease

Emergency Responses

• 2016 King Air Crash Incident Report

AFFF Product Information

• Ansulite 3% Manufacturer Safety Data Sheet and Product Information

Environmental Data Resources Report

2018 AASF#3 Jackson EDR Report

Prepared By: COL Leslie W. Barham Staff Judge Advocate Tennessee National Guard Nashville. TN 37204

LEASE AGREEMENT

January , 1992 , by and between the City of Jackson,

Tennessee and Madison County Tennessee, whose interest in the

property hereinafter described is that of owners for itself, its

successors and assigns, hereinafter called the Lessor, and the State

of Tennessee, for use by the Tennessee National Guard hereinafter

called the Lessee.

The parties hereto for the consideration hereinafter mentioned covenant and agree as follows:

- 2. The Lessor hereby leases to the Lessee the following premises and/or facilities located at Mckellar-Sipes Regional Airport, Madison County, Tennessee:
- (a) That certain tract or parcel of land lying and being in the Eighth Civil District of Madison County, Tennessee, being a part of property conveyed to Madison County and the City of Jackson, Tennessee, in two contiguous tracts by deeds shown of record in Deed Book 131, page 103, and Deed Book 135, page 623, Register's Office of Madison County, Tennessee, said parcel more particularly described as follows:

DESCRIPTION

A tract or parcel of land lying in the 8th Civil District of Madison County, Tennessee, being a part of the property conveyed to Madison

County and the City of Jackson, Tennessee, in two contiguous tracts by deeds shown of record in Deed Book 131, page 103, and Deed Book 135, page 623, Register's Office of Madison County, Tennessee, said parcel more particularly described as follows:

Beginning at an iron rod with plastic cap set at the point of intersection of the east edge of the north-south runway of McKellar-Sipes Airport and the south edge of the taxiway on the south side of east-west runway of same; said point being at Tennessee State Plane Coordinates (NAD 27), N=453129.40 and E=1133872.02 and runs by azimuth based upon said coordinate system; thence, S23°56'45"W, 2000.00 feet, with the east edge of north-south runway to an iron rod with cap set; thence, S65°58'25"E, 1300.00 feet, to an iron rod with cap set at a witness post; thence, N23°56'45"E, 2000.00 feet, to an iron rod with cap set at a witness post; thence, N65°58'25"W, 1400.00 feet, to and with the south edge of the taxiway on the south side of the east-west runway to the point of beginning.

Containing 59.69 acres.

- (b) The use of the land hereinabove described is to be confined to activities which are directly related to aircraft operations and military units of the Lessee at McKellar-Sipes Regional Airport, Jackson, Tennessee. The Lessor further leases to the Lessee the right to jointly utilize, in common with others, the airfield proper at McKellar-Sipes Regional Airport, Jackson, Tennessee, including, but not limited to joint use of runways, taxiways, rotating beacons, wind direction indicators, obstruction lights, runway markers, boundary fences, and all other airfield facilities exclusive of buildings. The said landing field is to be used for military aviation purposes, and it is understood and agreed that this term includes the Tennessee Army or Air National Guard.
- 3. To have and to hold the said premises with their appurtenances for the term beginning July 1, 1990, through June 30, 2045, provided that unless and until either party shall give notice

BOOK 872 PAGE 819

of termination in accordance with provision 12 or provision 8, this lease shall remain in force and effect from year to year without further notice provided adequate Federal and State appropriations are available from year to year for the payment of rentals.

- 4. The Lessee shall pay and/or reimburse the Lessor at the following rate:
- (a) The rental for land, buildings, facilities and airfields as set forth in paragraph 2, subparagraph (a) and (b) shall be the sum of one (\$1.00) dollar for the entire term of this lease, the receipt and sufficiency of which is hereby acknowledged.
- (b) It is however, further and expressly agreed by and between the parties hereto that in further consideration of the services to be rendered the Lessee in connection with the joint use of airport facilities, (runways and taxiways, etc.) as provided for in paragraph 2 of this agreement and for participating in the providing of fire protection and other essential services, there shall be executed a separate service agreement between the Adjutant General of the State of Tennessee and the Lessor to run concurrently with this lease to provide for payment to the Lessor of a maintenance fee (joint use fee) for the proportionate use of runways, taxiways and appurtenances thereto by the Tennessee National Guard. It is further understood and agreed by and between the parties that in the event the Tennessee National Guard is ordered into Active Federal Military Service during the tenure of this lease the service agreement (joint use agreement) herein provided for shall be suspended for the period the Tennessee

National Guard is in such service. In the event the lease facilities are required by an active military component of the United States of America during the tenure of this lease, that military component shall enter into a separate service agreement with the Lessor to provide for payment to the Lessor of a maintenance fee for services to be rendered in connection with the proportionate use of the runways, taxiways, and appurtenances thereto by such federal force. Such agreement shall be for duration of said occupancy.

- 5. The Lessee shall not assign this lease in any event, and shall not sublet the demised premises except with the written consent and approval of the Lessor.
- 6. The Lessor shall furnish to the Lessee as a part of the rental consideration the following:
- (a) Rights of ingress and egress to all jointly used facilities.
- (b) Maintenance of runways, taxiways, and the flying field proper at McKellar-Sipes Regional Airport excluding that property described in paragraph 2, subparagraph (a). Maintenance includes but is not limited to weed cutting, grass mowing, turf maintenance, maintenance of night lighting systems and obstruction lights, glide angle reclearing, maintenance of field drainage system, marking runways, and maintenance of such other facilities as necessary for the proper operation of said flying field.
- (c) Fire protection, including a staffed facility on the airfield during the hours of scheduled airfield operations.
 - 7. The Lessee shall have the right, during the existence of $872~{\rm PMS}~821$

this lease, to make alterations, attach fixtures, and erect additions, structures, or signs, in or upon the premises described under Paragraph 2 (a) hereof, which fixtures, additions, or structures, so placed in, upon, or attached to the said premises shall be and remain the property of the Lessee, and may be removed, abandoned, or otherwise disposed of by the Lessee. The Lessee shall surrender possession of the premises described in Paragraph 2 (a) hereof upon expiration or termination of this lease, and the Lessor hereby waives any and all claims or damages to and restoration of the said land and improvements.

- 8. The Lessee may terminate this lease in whole or in part or elect to decrease the area covered herein at any time by giving (30) days notice in writing to the Lessor. In the event of a decrease in area, a Supplemental Agreement will be executed providing for such decrease and describing the area in detail.
 - 9. It is further stipulated and agreed as follows:
- (a) That the Lessee's radio equipment will be so installed and operated as not to interfere with radio equipment operated by the Federal Aviation Agency or the Lessor.
- (b) That all ground vehicles which operate on the runways and taxiways shall be equipped with two-way radio equipment tuned to ground control frequencies except as otherwise agreed upon by the Lessor and the Lessee.
- (c) That the Lessor has developed the leased premises and its adjacent property as a commercial airport and that the use by

the Lessee of the premises herein leased shall be coordinated with commercial flying, landing, and take-off of private and transient aircraft.

- (d) That the use of the airport will be in such manner as will provide maximum safety and will minimize interference and hazards; however, this will in no way be construed to interfere with or restrict the accomplishment of any part of military combat or training missions of the Lessee.
- (e) That all security measures necessary for the protection of property exclusively used by the Lessee as covered by this lease shall be furnished by and at the expense of the Lessee.
- 10. The Lessor warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessor for the purpose of securing business. For breach or violation of this warranty the Lessee shall have the right to annul this lease without liability or in its discretion to deduct from the rental or consideration the full amount of such commission, percentage, brokerage, or contingent fee.
- 11. No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this lease or to any benefit that may arise therefrom but this provision shall not be construed to extend to this lease if made with a corporation for its general benefit.

- terminate the right of the Lessor to proceed under this lease if it is found, after notice and hearing, by the Secretary of the Army or his duly authorized representative, that gratuities (in the forms of entertainment, gifts, or otherwise) were offered or given by the Lessor, or any agent or representative of the Lessor, to any officer or employee of the Federal Government with a view toward securing a lease or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing, of such lease; provided, that the existence of facts upon which the Secretary of the Army or his duly authorized representative makes such finding shall be in issue and may be reviewed in any compentent court.
- (b) In the event this lease is terminated as provided in paragraph (a) hereof, the Lessee shall be entitled (i) to pursue the same remedies against the Lessor as it could pursue in the event of a breach of the lease by the Lessor, and (ii) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Secretary of the Army or his duly authorized representative) which shall be not less than three nor more than ten times the costs incurred by the Lessor in providing any such gratuities to any such officers or employee.
- (c) The rights and remedies of the Lessee provided in this clause shall not be exclusive and are in addition to any other

- rights and remedies provided by law are under this lease.
- 13. It is expressly understood and agreed that the Lessor will hold the Lessee harmless from any negligent acts of Lessor's agents or employees, occurring on the leased lands.
- 14. Notices to the Lessor provided for herein shall be sufficient if sent by registered mail, postage prepaid, addressed to:

JACKSON-MADISON COUNTY AIRPORT McKellar-Sipes Regional Airport Jackson, Tennessee 38301

Notices to the Lessee, if sent by registered mail, postage prepaid, addressed to:

THE ADJUTANT GENERAL TENNESSEE NATIONAL GUARD Houston Barracks P.O. Box 41502 Nashville, TN 37204-1502

or to such other address as parties may designate in writing.

15. Whenever the terms "Federal Aviation Agency" or "FAA" is used in this lease, it shall be construed as referred to the Federal Aviation Agency created by the Federal Government by an act of Congress as a successor to the Civil Aeronautics Authority created by the Civil Aeronautics Act of 1938, as amended in 1959, or to such other agency or agencies of the Federal Government having from time to time similar jurisdiction over the Lessee or its business.

The Lessee shall observe and comply with the covenants and conditions of the following "Grant Agreement Assurance":

A. The Lessee, for itself, its personal representatives, successors in interest, and assigns, as a part of the consideration

BOOK 872 PAGE 825

hereof, does hereby covenant and agree that (a) no person the grounds of race, color, or national origin shall be excluded from participation, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (b) that in the construction of any improvements on, over, or under such land and the furnishing of services thereon, no person on the grounds of race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (c) that the Lessee shall use the premises in compliance with all other requirements imposed by or pursuant to Title 49, code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 121, Nondiscrimination in Federally assisted programs of the Department of Transportation—Effectuation of Title Vi of the Civil Rights Act of 1964, and as said Regulations may be amended.

- B. That in the event of breach of any of the above nondiscrimination covenants, the Lessor shall have the right to terminate the agreement and to reenter and repossess said land and facilities thereon, and hold the same as if said agreement had never been made or issued.
- C. The Lessee agrees that it shall insert the above provisions in any lease (agreement, contract, etc.) by which said Lessee grants a right or privilege to any persons, firm or corporation.
- 17. It is further expressly understood and agreed by and between the parties hereto that in the event any covenant, condition

or provision herein contained is held to be invalid by any court of competent jurisdiction, or otherwise appears to both parties to be invalid, the invalidity of any such covenant, condition or provision shall in no way affect any other covenant, condition or provision herein contained; provided, however, that the invalidity of any such covenant, condition or provision does not materially prejudice either the Lessor the Lessee in its respective rights and obligations contained in the valid covenants, conditions or provisions of this lease.

Continued performance by either party pursuant to the terms of this agreement after a default of any of the terms, covenants and conditions herein contained to be performed, kept or observed by the other party shall not be deemed a waiver of any right to cancel this lease for such default, and no waiver of any such default shall be construed or act as a waiver of any subsequent default.

The following documents are attached to this lease agreement as

Annexes and are incorporated herein by reference as fully and

completely as though copied herein verbatim:

Annex A - Resolution creating Airport Authority (Jackson-Madison County Airport Authority)

Annex B - Survey description and map of leased premises prepared by Professional Land Services dated September 17, 1990.

IN WITNESS WHEREOF, the parties hereto have caused this leasehold agreement to be executed as of the day and year first above written.

CITY OF JACKSON

Charles H. Darmer

CHARLES H. FARMER MAYOR

MADISON COUNTY

J. ALEX LEECH
COUNTY EXECUTIVE

STATE OF TENNESSEE TENNESSEE NATIONAL GUARD

JERRY R. WYATT
MAJOR GENERAL

THE ADJUTANT GENERAL

Mest Miller

GOVERNOR STATE OF TENNESSEE

Matri

APPROVED

COMMISSIONER

FINANCE AND ADMINISTRATION

Charles W. Bruson

APPROVED AS TO FORM AND LEGALITY ATTORNEY GENERAL & REPORTER STATE OF TENNESSEE Before me Leslie W. Barham a Notary Public of the state and county aforesaid, personally appeared Charles H. Farmer, with whom I am personally acquainted, and who, upon oath, acknowledged himself to be Mayor of the City of Jackson, Tennessee, the within named bargainer, and that he as such Mayor, being authorized so to do, executed the foregoing instrument for the purpose therein contained.

Witness my hand and seal at office in Jackson, Tennessee, this 10 day of 1996.

LESLIE W. BARHAM NOTARY PUBLIC

My commission expires 4-17-94

STATE OF TENNESSEE COUNTY OF DAVIDSON

Personally appeared before me S. Clar Taller Notary Public for Davidson County, David L. Manning, Commissioner of Finance and Administration with whom I am personally acquainted and who, upon oath, acknowledged that he is the Commissioner of Finance and Administration and that he as Commissioner, being authorized so to do, executed the foregoing instrument for the purpose therein contained by signing the name of the State of Tennessee by himself as Commissioner.

WITNESS my hand and seal at office in Nashville, this 34 day of 3 arch, 19 92.

Solary Public

My Commission Expires:

anuary 27, 1996

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STATE OF TENNESSEE COUNTY OF MADISON

Before me Leslie W. Barham a Notary Public of the state and county aforesaid, personally appeared J. Alex Leech, with whom I am personally acquainted, and who, upon oath, acknowledged himself to be County Executive of the City of Jackson, Tennessee, the within named bargainer, and that he as County Executive, being authorized so to do, executed the foregoing instrument for the purpose therein contained.

Witness my hand and seal at office in Jackson, Tennessee this 10 day of ANUARY, 1991.

LESLIE W. BARHAM NOTARY PUBLIC

My commission expires 4-17-94

BOOK 872 PAGE 830

STATE OF TENNESSEE COUNTY OF MADISON

Before me Leslie W. Barham a Notary Public of the state and county aforesaid, personally appeared MG Jerry R. Wyatt, with whom I am personally acquainted, and who, upon oath, acknowledged himself to be The Adjutant General for the State of Tennessee, the within named bargainer, and that he as The Adjutant General, being authorized so to do, executed the foregoing instrument for the ! purpose therein contained.

Witness my hand and seal at office in Jackson, Tennessee this 10 day of TANVARU

NOTARY PUBLIC

My commission expires 4-17-94

(State of Tennessee) I, Curtis White, Register of said County do hereby (County of Madison), certify that the foregoing instrument, with Notary Page 260 and was duly recorded this day, in Book, of Just No. 872 Page 8/8 State Taxes _____ Register's Fee ____ Recording 5 600 Total ____.Receipt Sanda Waldon D. R.

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Jackson-Madison County Airport Authority McKellar-Sipes Regional Airport

ARFF AND SECURITY

INCIDENT REPORT

DATE 9.21-2016 ARFF OFFICER ON DUTY Grea Pewitte

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Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

1. Identification

1.1. Product Identifier

Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

1.2. Other means of identification

Product code 054783 Synonyms None

Chemical Family No information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use Fire extinguishing agent.

Uses advised against Consumer use.

1.4. Details of the Supplier of the Safety Data Sheet

Company Name Tyco Fire Protection Products

One Stanton Street Marinette, WI 54143-2542 Telephone: 715-735-7411

Contact point Product Stewardship at 1-715-735-7411

E-mail address psra@tycofp.com

1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

2. Hazards Identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral - Category 4

Serious eye damage/eye irritation - Category 2A

2.2. Label Elements

Signal Word

WARNING

Hazard Statements

Harmful if swallowed

Causes serious eye irritation





Product name ANSULITE 3% / FREEZE PROTECTED AFFF Foam Concentrate

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Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal

Dispose of contents/container to an approved waste disposal plant.

2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

2.4. Other Information

Unknown Acute Toxicity 52.4234% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No.	weight-%
Ethylene Glycol	107-21-1	15 - 40
2-(2-Butoxyethoxy)ethanol	112-34-5	10 - 30
Polyfluorinated alkyl betaine	Proprietary	1 - 5
Lauryl Imino Propionate, Sodium Salt	14960-06-6	1 - 5

4. First aid measures

4.1. Description of first aid measures

General Advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do

not get in eyes, on skin, or on clothing.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately

if symptoms occur.).

Ingestion Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison

control center or physician immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed



Product name ANSULITE 3% / FREEZE PROTECTED AFFF Foam Concentrate **PAGE** 3/10

5. Fire-fighting measures

5.1. Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Unsuitable Extinguishing Media

None.

5.3. Specific Hazards Arising from the Chemical

None known.

Hazardous Combustion

Products

Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

5.4. Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

5.5. Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation, especially in confined areas.

6.2. Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers,

basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. Handling and Storage

7.1. Precautions for Safe Handling

Advice on safe handling Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and

safety practice.



Product name ANSULITE 3% FREEZE PROTECTED AFFF

Foam Concentrate

REEZE PROTECTED AFFF

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7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL
Ethylene Glycol 107-21-1	STEL: 50 ppm vapor fraction STEL: 10 mg/m³ inhalable particulate matter, aerosol only TWA: 25 ppm vapor fraction	-	-	100 mg/m³ (Ceiling)
2-(2-Butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm_inhalable fraction and vapor	=	-	

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

Ventilation Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State Liquid

Odor Characteristic Color Light yellow

Odor Threshold No data available

Property Values Remarks • Method

pH No data available



/ Product name ANSULITE 3% FREEZE PROTECTED AFFF

Foam Concentrate

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Melting point/freezing point
Boiling point / boiling range
Flash Point
Evaporation Rate
Flammability (solid, gas)
Flammability limit in air

No data available
> 100 °C / 212 °F
> 100 °C / > 212 °F
No data available
No data available

Upper flammability limit: No data available Lower flammability limit: No data available Vapor Pressure No data available No data available Vapor Density Specific gravity No data available No data available Water Solubility Solubility in Other Solvents No data available No data available Partition coefficient **Autoignition Temperature** No data available **Decomposition Temperature** No data available Kinematic viscosity No data available

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

Inhalation No data available.

Eye Contact Severely irritating to eyes.



Product name ANSULITE 3%
FREEZE PROTECTED AFFF

Foam Concentrate

Foam Concentrate

1

Skin contact No data available.

Ingestion Harmful if swallowed.

Component Information

Acute Toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol 107-21-1	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat)= 9530 μL/kg (Rabbit)	120
2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg (Rat)	= 2700 mg/kg(Rabbit)	V20

11.2. Information on Toxicological Effects

Symptoms No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin Corrosion/Irritation No information available. Severely irritating to eyes. Serious eye damage/eye irritation No information available. Sensitization **Germ Cell Mutagenicity** No information available. Carcinogenicity No information available. No information available. Reproductive Toxicity STOT - Single Exposure No information available. STOT - Repeated Exposure No information available.

Target organ effects Central Nervous System, Eyes, Respiratory System, Skin.

Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1316 mg/kg **ATEmix (dermal)** 18115 mg/kg

12. Ecological Information

12.1. Ecotoxicity

0.0264% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ethylene Glycol	EC50 (96h) 6500 - 13000 mg/L	LC50 (96h) static 40000 - 60000	EC50 (48h) = 46300 mg/L Daphnia
107-21-1	Pseudokirchneriella subcapitata	mg/L Pimephales promelas LC50	magna
		(96h) static = 27540 mg/L Lepomis	
		macrochirus LC50 (96h) = 41000	
		mg/L Oncorhynchus mykiss LC50	
		(96h) static 14 - 18 mL/L	
		Oncorhynchus mykiss LC50 (96h)	
		static = 16000 mg/L Poecilia	
		reticulata LC50 (96h) static = 40761	
		mg/L Oncorhynchus mykiss	
2-(2-Butoxyethoxy)ethanol	EC50 (96h) > 100 mg/L	LC50 (96h) static = 1300 mg/L	EC50 (48h) > 100 mg/L Daphnia
112-34-5	Desmodesmus subspicatus	Lepomis macrochirus	magna EC50 (24h) = 2850 mg/L
			Daphnia magna
1,2-Propanediol	EC50 (96h) = 19000 mg/L	LC50 (96h) static = 51600 mg/L	EC50 (48h) Static > 1000 mg/L
57-55-6	Pseudokirchneriella subcapitata	Oncorhynchus mykiss LC50 (96h)	Daphnia magna EC50 (24h) >

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Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

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1

Concentrate

Method Biological Test Method: Acute Lethality Using Threespine Stickleback (Gasterosteus

aculeatus) (EPS 1/RM/10)

Species Gasterosteus aculeatus

Endpoint type LC50
Effective dose 3,180 mg/L
Exposure time 96h

3% Solution

Method Biological Test Method: Acute Lethality Using Threespine Stickleback (Gasterosteus

aculeatus) (EPS 1/RM/10)

Species Gasterosteus aculeatus

Endpoint type LC50
Effective dose 67,090 mg/L

Exposure time 96h

12.2. Persistence and Degradability

۰

Chemical Oxygen Demand (mg/L)

 Concentrate
 750,000

 3% Solution
 23,000

Concentrate Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day)	22000
%BOD/COD	2.93
Biological Oxygen Demand (10 Day)	440000
%BOD/COD	58.67
Biological Oxygen Demand (15 Day)	470000
%BOD/COD	62.67
Biological Oxygen Demand (20 Day)	500000
%BOD/COD	66.67

3% Solution Biological Oxygen Demand (mg/L)

Biological Oxygen Demand (5 Day)	300
%BOD/COD	1.30
Biological Oxygen Demand (10 Day)	13000
%BOD/COD	56.52
Biological Oxygen Demand (15 Day)	15000
%BOD/COD	65.22
Biological Oxygen Demand (20 Day)	16000
%BOD/COD	69.57

12.3. Bioaccumulation



/ Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

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No information available.

Chemical name	Partition coefficient
Ethylene Glycol 107-21-1	-1.93

12.4. Other Adverse Effects

No information available

13. Disposal Considerations

13.1. Waste Treatment Methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Do not reuse container.

14. Transport Information

DOT NOT REGULATED

TDG NOT REGULATED

MEX NOT REGULATED

ICAO (air) NOT REGULATED

IATA NOT REGULATED

IMDG NOT REGULATED

15. Regulatory Information

15.1. International Inventories

TSCA Complies
DSL/NDSL Complies
ENCS Complies
IECSC Complies
KECL Complies
PICCS Does not comply
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances **IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations

SARA 313



Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

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Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %		
Ethylene Glycol - 107-21-1	1.0		
2-(2-Butoxyethoxy)ethanol - 112-34-5	1.0		

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic health hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Ethylene Glycol	5000 lb	(m)	RQ 5000 lb final RQ
107-21-1			RQ 2270 kg final RQ

15.3. US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65	
Ethylene Glycol - 107-21-1	Developmental	

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene Glycol	X	X	X
107-21-1			
2-(2-Butoxyethoxy)ethanol	X	-	X
112-34-5			
1,2-Propanediol	X	-	X
57-55-6			

16. Other information, including date of preparation of the last revision

NFPA Health Hazards 2 Flammability 1 Instability 0 Physical and chemical

properties -

HMIS Health Hazards 2 Flammability 1 Physical Hazards 0 Personal Protection X

Revision date 31-Jul-2017

Revision note SDS sections updated, 12.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the



/ Product name ANSULITE 3% FREEZE PROTECTED AFFF Foam Concentrate

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date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

1

End of Safety Data Sheet



ANSULITE 3% Freeze-Protected AFFF Concentrate

Description

ANSULITE 3% Freeze-Protected AFFF (Aqueous Film-Forming Foam) Concentrate is formulated from specialty fluorochemical and hydrocarbon type surfactants along with solvents. It is transported and stored as a concentrate to provide ease of use and considerable savings in weight and volume.

It is intended for use as a 3% proportioned solution in fresh, salt or hard water. It may also be used and stored as a 3% premixed solution in fresh or potable water only. However, the diluted solution will freeze at 32 °F (0 °C). The correct proportioning mixture ratio is 3 parts concentrate to 97 parts water.

Three fire suppressing mechanisms are in effect when using ANSULITE 3% Freeze-Protected AFFF Concentrate. First, an aqueous film is formed which works to help prevent the release of fuel vapor. Second, the foam blanket from which the filmforming liquid drains effectively excludes oxygen from the fuel surface. Third, the water content of the foam provides a cooling effect.

TYPICAL PHYSIOCHEMICAL PROPERTIES AT 77 °F (25 °C)

Application

ANSULITE 3% Freeze-Protected AFFF Concentrate is intended for use on Class B hydrocarbon fuel fires having low water solubility such as various crude oils, gasolines, diesel fuels, aviation fuels, etc. It is not suitable for use on fuels having appreciable water solubility (polar solvents), i.e., methyl and ethyl alcohol, acetone, and methyl ethyl ketone. It can be used with both aspirating and non-aspirating discharge devices because of the low energy required to make it foam.

The excellent wetting characteristics make it useful in combating Class A fires as well. It can be used with dry chemical suppressing agents without regard to the order of application to provide even greater fire protection capability.



009141

Fire Performance

ANSULITE 3% Freeze-Protected AFFF Concentrate has been tested to Underwriters Laboratories Standard UL 162. Reports covering this fire performance are available on request since standards and specifications such as those cited are continuously being upgraded and changed.

Foaming Properties

When used with fresh, salt or hard water at the correct dilution with most conventional foam making equipment, the expansion ratio will vary depending on the performance characteristics of the equipment. Aspirating discharge devices produce expansion ratios of 6:1 to 10:1 depending primarily on type of aspirating device and flow rate. Subsurface injection is a special case where generally expansion ratios of 2:1 to 3:1 are preferred but up to 4:1 is allowed. Non-aspirating devices such as handline water fog/stream nozzles or standard sprinkler heads give expansion ratios of 2:1 to 4:1.

Proportioning

ANSULITE 3% Freeze-Protected AFFF Concentrate can be proportioned easily at the correct dilution using most conventional proportioning equipment such as:

- Balanced pressure and in-line balanced pressure pumped proportioning equipment
- 2. Balanced pressure bladder tank proportioners
- 3. Around-the-pump type proportioners
- 4. Fixed or portable (in-line) venturi type proportioners
- 5. Handline nozzles with fixed induction/pickup tubes

The usable temperature range for ANSULITE 3% Freeze-Protected AFFF Concentrate with this equipment is -20 °F to 120 °F (-29 °C to 49 °C).



Storage/Shelf Life

When stored in the packaging supplied (polyethylene drums or pails) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of ANSULITE 3% Freeze-Protected AFFF Concentrate may exceed 20 years. The factors affecting shelf life and stability for ANSULITE AFFF Agents are discussed in detail in ANSUL® Technical Bulletin No. 54. If the product is frozen during storage or transportation, thawing will render the product completely usable. Gentle mixing after freeze-thaw cycle is recommended.

Compatibility

Refer to ANSUL Technical Bulletin No. 64 for a more detailed discussion of compatibility.

Different types of foam concentrates, i.e., AFFF, protein base etc., should not be mixed under any circumstances.

Materials of Construction Compatibility

Tests have been performed with ANSULITE AFFF concentrates verifying compatibility with standard carbon steel "black" pipe and pipe manufactured from various stainless steel or brass compounds. Alternative pipe, fittings, and valves may be used in some cases if acceptable to the customer and/or the authority having jurisdiction. Refer to ANSUL Technical Bulletin No. 59 addressing acceptable materials of construction for use with ANSUL foam concentrates.

Galvanized pipe and fittings must not be used in areas where undiluted concentrate will contact them since corrosion will result.

Please **first** consult Tyco Fire Protection Products for specific guidelines concerning materials of construction.

Inspection

As with any fire suppressing agent, ANSULITE 3% Freeze-Protected AFFF Concentrate, whether in the concentrate or pre-mixed form, should be inspected periodically per requirements of NFPA 11 "Standard for Low-, Medium-, and High-Expansion Foam." Annually submit samples to the manufacturer or a qualified laboratory for quality condition testing. Refer to the Field Inspection Manual (Part No. 31274) for detailed inspection procedures. An annual inspection is recommended unless unusual conditions of exposure occur such as described in ANSUL Technical Bulletin No. 54. In such cases, contact Tyco Fire Protection Products for more information.

Approvals and Listings

ANSULITE 3% Freeze-Protected AFFF Concentrate is approved, qualified under, listed or meets the requirements of the following specifications and standards:

Underwriters Laboratories Inc. - UL Standard 162

- 1. Foam Quality Tests
- 2. Class B Hydrocarbon Fuel Fire Tests
- 3. Foam Identification Tests
- 4. Tests of Shipping Containers
- 5. Class B Hydrocarbon Fuel Sprinkler Tests (Standard type both upright and pendent approvals only)

It is impractical to list ANSULITE 3% agent with every piece of UL listed hardware. Moreover, there are numerous foam hardware components without UL listings that cannot be listed for use with any AFFF concentrate.

Many unlisted pieces of foam hardware should be similar to those listed. However, on installations where ANSULITE 3% may be used with significantly different hardware components than those tested, contact Technical Services for recommendations.

Ordering Information

ANSULITE 3% Freeze-Protected AFFF Concentrate is available in pails, drums, totes, or bulk shipment.

Part No.	Description	Shipping Weight	Cube
54783	Pail	45 lb	1.25 ft³
	5 gal (19 L)	(20.4 kg)	(0.035 m³)
54892	Drum	495 I b	11.83 ft ³
	55 gal (208 L)	(224.5 kg)	(0.335 m ³)
432161	Tote	2465 lb	50 ft ³
	265 gal (1000 L)	(1118 kg)	(1.42 m³)
54660	Bulk Order	Contact Technical Services	

Note: The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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AASF # 3 Jackson, TN Jackson, TN 38301

Inquiry Number: 5371648.3

July 24, 2018

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

07/24/18

Site Name: Client Name:

AASF # 3 AECOM

Jackson, TN 12120 Shamrock Plaza Jackson, TN 38301 Omaha, NE 68154

EDR Inquiry # 5371648.3 Contact: Brittany Kirchmann



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by AECOM were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 22FE-4C85-BE0E

PO# NA

Project 60552172.0005-TN-PA-TN

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 22FE-4C85-BE0E

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

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AASF # 3

Jackson, TN Jackson, TN 38301

Inquiry Number: 5371648.5

July 25, 2018

The EDR Aerial Photo Decade Package



EDR Aerial Photo Decade Package

07/25/18

Site Name: **Client Name:**

AASF#3 **AECOM**

Jackson, TN 12120 Shamrock Plaza Jackson, TN 38301 Omaha, NE 68154 EDR Inquiry # 5371648.5



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Contact: Brittany Kirchmann

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2008	1"=500'	Flight Year: 2008	USDA/NAIP
1997	1"=500'	Acquisition Date: February 01, 1997	USGS/DOQQ
1992	1"=750'	Flight Date: April 04, 1992	USGS
1985	1"=500'	Flight Date: March 18, 1985	USDA
1975	1"=500'	Flight Date: October 15, 1975	USGS
1956	1"=500'	Flight Date: March 17, 1956	USGS
1952	1"=500'	Flight Date: November 12, 1952	USGS
1947	1"=500'	Flight Date: April 06, 1947	USGS

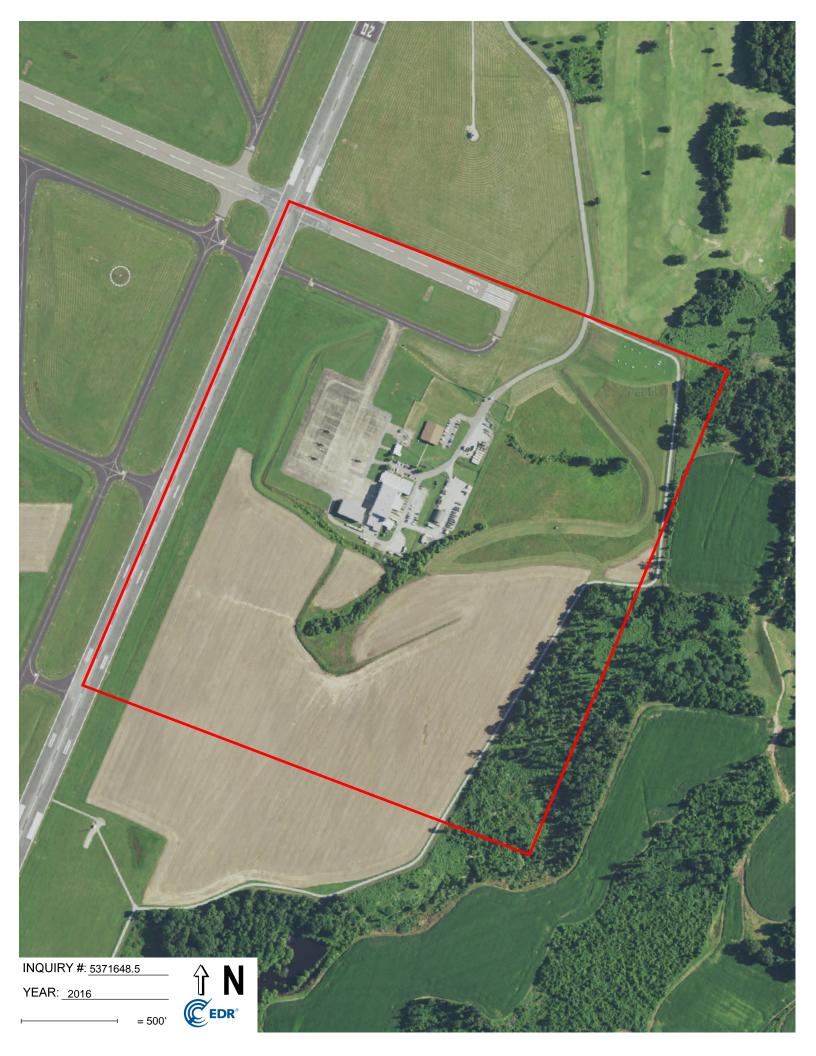
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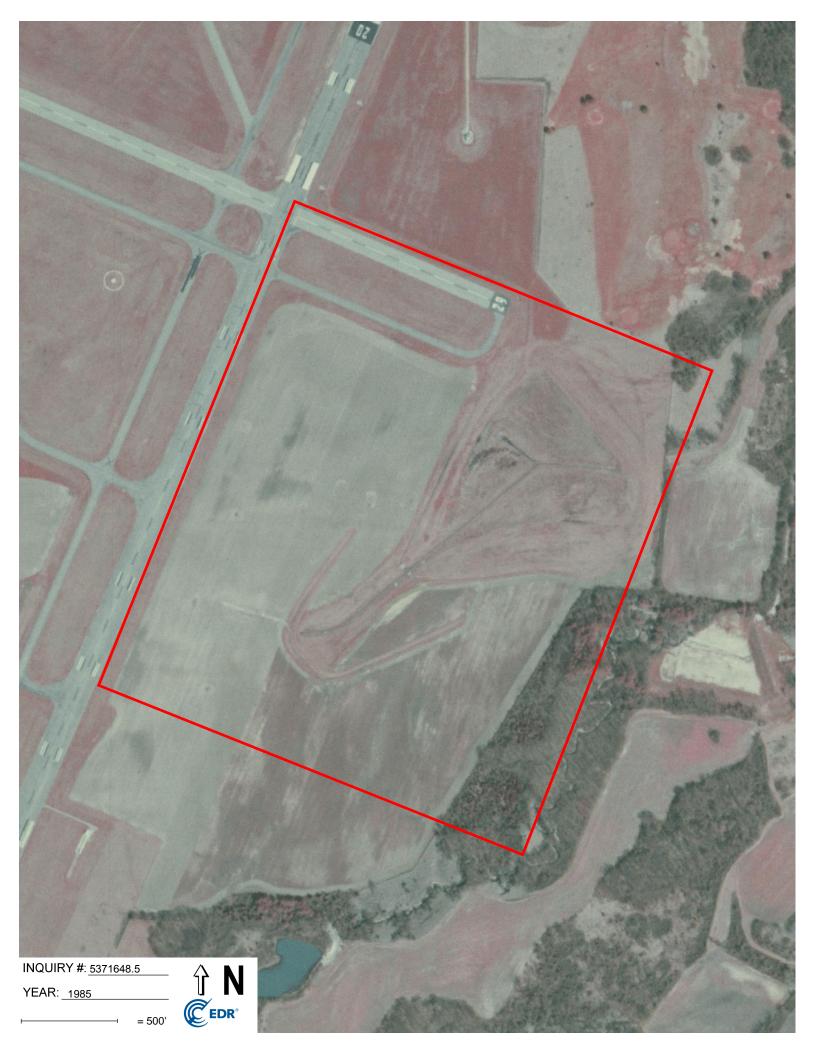


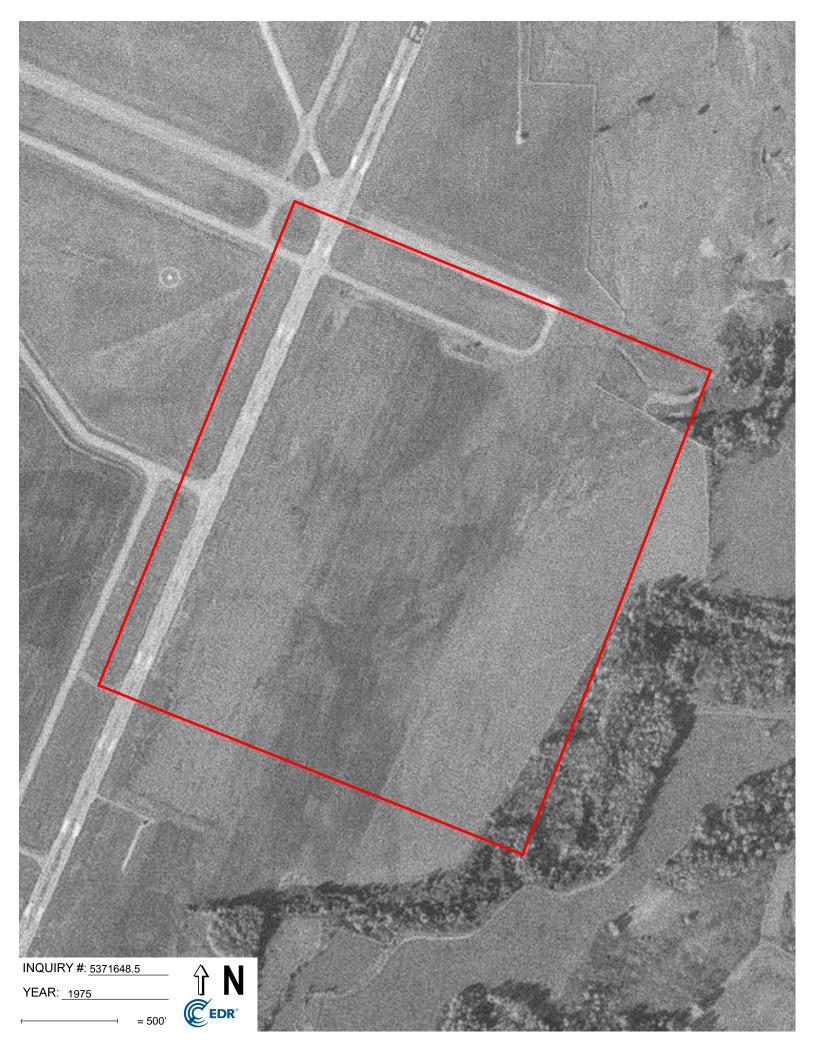


















AASF # 3 Jackson, TN

Jackson, TN 38301

Inquiry Number: 5371648.2s

July 24, 2018

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

JACKSON, TN JACKSON, TN 38301

COORDINATES

Latitude (North): 35.5983950 - 35° 35' 54.22" Longitude (West): 88.9130850 - 88° 54' 47.10"

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 326693.7 UTM Y (Meters): 3940891.2

Elevation: 420 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5944486 WESTOVER, TN

Version Date: 2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140701 Source: USDA

MAPPED SITES SUMMARY

Target Property Address: JACKSON, TN JACKSON, TN 38301

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
1	OWENS CORNING LANDFI	OWENS CORNING LANDFI	SWF/LF	Lower	2557, 0.484, East

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal	NPL	site	list	
NIDI				

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY______ Federal Facility Site Information listing SEMS______ Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF...... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG______RCRA - Large Quantity Generators RCRA-SQG______RCRA - Small Quantity Generators

RCRA-CESQG...... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS...... Land Use Control Information System US ENG CONTROLS...... Engineering Controls Sites List

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

SHWS_____List of Inactive Hazardous Substance Sites

State and tribal leaking storage tank lists

LUST...... Leaking Underground Storage Tank Database Listing INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

LUST TRUST _____LUST TRUST Fund Database

HIST_LUST CO..... Leaking Underground Storage Tanks Sites

State and tribal registered storage tank lists

UST______Facility and Tank Report
AST______Aboveground Storage Tanks

INDIAN UST...... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

ENG CONTROLS..... Engineering Control Sites INST CONTROL...... Institutional Control Sites

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

SRP..... State Remediation Program List

State and tribal Brownfields sites

BROWNFIELDS..... Superfund VOAP Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Facilities Listing

ODI...... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST..... Underground Storage Tank Database

Local Land Records

LIENS.....Liens Information

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS..... State Spills

Other Ascertainable Records

RCRA NonGen / NLR...... RCRA - Non Generators / No Longer Regulated

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

TRIS...... Toxic Chemical Release Inventory System

SSTS...... Section 7 Tracking Systems

RAATS...... RCRA Administrative Action Tracking System

PRP....... Potentially Responsible Parties PADS....... PCB Activity Database System

ICIS...... Integrated Compliance Information System

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER...... PCB Transformer Registration Database

RADINFO...... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS...... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV.....Indian Reservations

FUSRAP..... Formerly Utilized Sites Remedial Action Program

UMTRA..... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US AIRS..... Aerometric Information Retrieval System Facility Subsystem

US MINES...... Mines Master Index File ABANDONED MINES..... Abandoned Mines

FINDS...... Facility Index System/Facility Registry System

UXO...... Unexploded Ordnance Sites

DOCKET HWC..... Hazardous Waste Compliance Docket Listing ECHO..... Enforcement & Compliance History Information

FUELS PROGRAM..... EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP...... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF...... Recovered Government Archive Solid Waste Facilities List
RGA LUST...... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Environment & Conservation's list: Sanitary, Industrial, Demolition, Solid Waste Processing Facilities and Closed Landfills.

A review of the SWF/LF list, as provided by EDR, and dated 03/12/2018 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
OWENS CORNING LANDFI	OWENS CORNING LANDFI	E 1/4 - 1/2 (0.484 mi.)	1	8

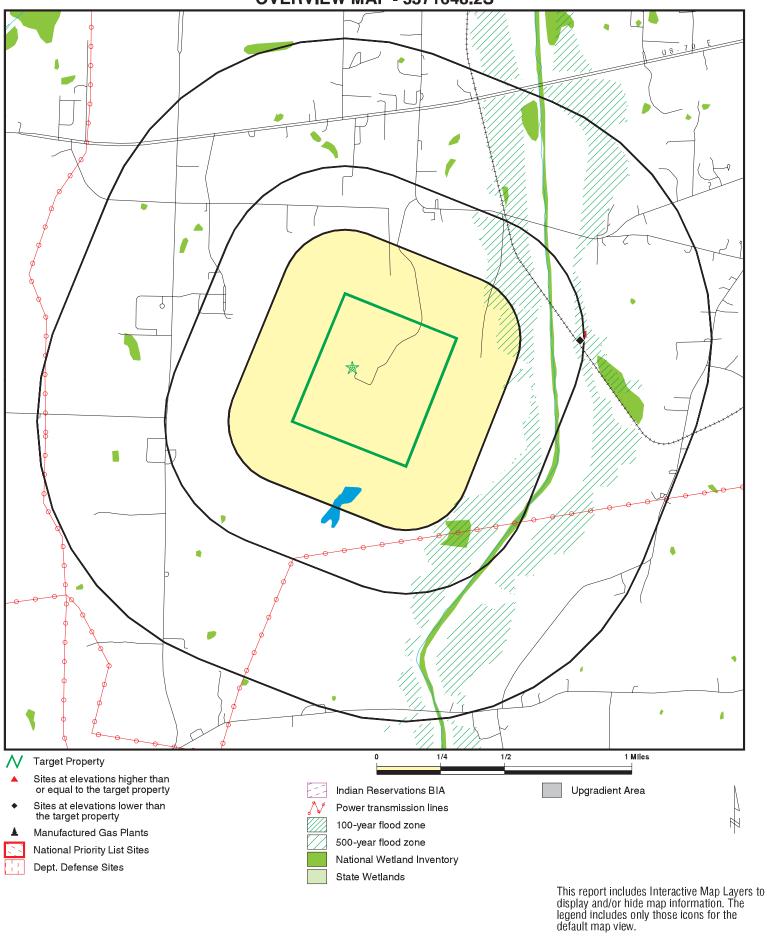
Status: Inactive Facility Id: IDL570000019

Due to poor or inadequate address information,	the following sites were not mapped. Count: 1 records.
--	--

Site Name Database(s)

OWENS-CORNING LDFL SITE SEMS-ARCHIVE

OVERVIEW MAP - 5371648.2S



SITE NAME: AASF # 3
ADDRESS: Jackson, TN
Jackson TN 38301
LAT/LONG: 35.598395 / 88.913085

CLIENT: AECOM
CONTACT: Brittany Kirchmann
INQUIRY #: 5371648.2s
DATE: July 24, 2018 4:41 pm

DETAIL MAP - 5371648.2S



SITE NAME: AASF # 3
ADDRESS: Jackson, TN
Jackson TN 38301
LAT/LONG: 35.598395 / 88.913085

CLIENT: AECOM
CONTACT: Brittany Kirchmann
INQUIRY #: 5371648.2s
DATE: July 24, 2018 4:45 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted		
STANDARD ENVIRONMENTAL RECORDS										
Federal NPL site list										
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0		
Federal Delisted NPL sit	e list									
Delisted NPL	1.000		0	0	0	0	NR	0		
Federal CERCLIS list										
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0		
Federal CERCLIS NFRAI	P site list									
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0		
Federal RCRA CORRAC	TS facilities li	st								
CORRACTS	1.000		0	0	0	0	NR	0		
Federal RCRA non-COR	RACTS TSD fa	acilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0		
Federal RCRA generator	rs list									
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0		
Federal institutional con engineering controls reg										
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0		
Federal ERNS list										
ERNS	TP		NR	NR	NR	NR	NR	0		
State- and tribal - equiva	lent NPL									
SHWS	1.000		0	0	0	0	NR	0		
State and tribal landfill a solid waste disposal site										
SWF/LF	0.500		0	0	1	NR	NR	1		
State and tribal leaking s	storage tank l	ists								
LUST INDIAN LUST LUST TRUST HIST_LUST CO	0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
State and tribal register	ed storage tal	nk lists						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0
State and tribal institution control / engineering co		es						
ENG CONTROLS INST CONTROL	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal voluntar	y cleanup sit	es						
INDIAN VCP VCP SRP	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal Brownfid	elds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	Solid							
SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR NR	NR NR NR NR	0 0 0 0
Local Lists of Hazardou Contaminated Sites	s waste /							
US HIST CDL CDL PRIORITYCLEANERS DEL SHWS US CDL	TP TP 0.500 1.000 TP		NR NR 0 0 NR	NR NR 0 0 NR	NR NR 0 0 NR	NR NR NR 0 NR	NR NR NR NR NR	0 0 0 0
Local Lists of Registere	d Storage Tai	nks						
HIST UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS LIENS 2	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
Records of Emergency	Release Repo	orts						
HMIRS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS FTTS MLTS COAL ASH DOE COAL ASH EPA PCB TRANSFORMER RADINFO HIST FTTS DOT OPS CONSENT INDIAN RESERV FUSRAP UMTRA LEAD SMELTERS US AIRS US MINES ABANDONED MINES FINDS UXO DOCKET HWC ECHO FUELS PROGRAM AIRS DRYCLEANERS	0.250 1.000 1.000 0.500 TP TP 0.250 TP TP 1.000 TP		OOOORRORRORRRRRRRRRRORRROOOOORRORROOROO	00000KK0KKKOKKKKKKKKKKOKKKOOOOKKOOKKOKKO	R O O O R R R R R O R R R R R R R R R O O O O O R R R R R O R R R R R R R R R R R R R R O O O O O O O R R R R R O R	R O O R R R R R R R R R R R R R R R R R	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
LEAD NPDES VAPOR	TP TP 0.500		NR NR 0	NR NR 0	NR NR 0	NR NR NR	NR NR NR	0 0 0
EDR HIGH RISK HISTORICA			O	Ü	Ü	IVIX	INIX	Ü
EDR Exclusive Records			_	_	_	_	–	_
EDR MGP	1.000		0	0	0	0	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted	
EDR Hist Auto EDR Hist Cleaner	0.125 0.125		0	NR NR	NR NR	NR NR	NR NR	0 0	
EDR RECOVERED GOVERNMENT ARCHIVES									
Exclusive Recovered Gov	Exclusive Recovered Govt. Archives								
RGA LF RGA LUST	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0	
- Totals		0	0	0	1	0	0	1	

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

OWENS CORNING LANDFILL SWF/LF S107031100

East OWENS CORNING LANDFILL N/A

East OWENS CORNING LANDFILL 1/4-1/2 MADISON (County), TN 38301

0.484 mi. 2557 ft.

Relative: SWF/LF:

LowerFacility ID:IDL570000019Actual:Status:Inactive

361 ft. Permittee: OWENS CORNING

Issuance: 01/01/1979

Mailing Address: Westover Road At Johnson Crk

Mailing City: Jackson
Latitude: 35.6
Longitude: -88.897222
Permit ID: 738
Site ID: 10021
Application to NCO: Not reported

Activity: INDUSTRIAL LANDFILL

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
JACKSON	1003868569	OWENS-CORNING LDFL SITE	WESTOVER RD	38301	SEMS-ARCHIVE

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 05/13/2018 Source: EPA
Date Data Arrived at EDR: 05/30/2018 Telephone: N/A

Number of Days to Update: 23 Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 05/13/2018 Source: EPA
Date Data Arrived at EDR: 05/30/2018 Telephone: N/A

Number of Days to Update: 23 Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA Telephone: 202-564-4267

Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 23

Source: EPA Telephone: N/A

Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017

Number of Days to Update: 92

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 05/18/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 23

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 05/18/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 23

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: (404) 562-8651 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: Environmental Protection Agency Telephone: (404) 562-8651

Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: (404) 562-8651 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: (404) 562-8651 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 05/09/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2018 Date Data Arrived at EDR: 02/27/2018 Date Made Active in Reports: 05/11/2018

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2018

Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2018 Date Data Arrived at EDR: 02/27/2018 Date Made Active in Reports: 05/11/2018

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2018

Next Scheduled EDR Contact: 09/10/2018

Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/19/2018 Date Data Arrived at EDR: 03/27/2018 Date Made Active in Reports: 06/08/2018

Number of Days to Update: 73

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 06/27/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

SHWS: Promulgated Sites

"Inactive hazardous substance sites that constitute an imminent, substantial danger" is an inactive hazardous substance site where there is a threat of danger to the public health, safety, or environment which is both real and presently existing. Such situations may include, but are not limited to one or more of the following: an immediate action is necessary to minimize an ongoing threat to the public health or pollution of the environment, an inactive hazardous substance site where there is an active release, where direct access to the hazardous substance is not controlled, or where incompatible hazardous substances are found in close proximity. Also known as Promulgated Sites List.

Date of Government Version: 06/27/2016 Date Data Arrived at EDR: 07/08/2016 Date Made Active in Reports: 09/16/2016

Number of Days to Update: 70

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Disposal Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/12/2018 Date Data Arrived at EDR: 03/15/2018 Date Made Active in Reports: 03/23/2018

Number of Days to Update: 8

Source: Department of Environment and Conservation

Telephone: 615-532-0804 Last EDR Contact: 06/14/2018

Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST: Fund Eligible Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank site locations.

Date of Government Version: 05/14/2018 Date Data Arrived at EDR: 05/15/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 17

Source: Department of Environment and Conservation

Telephone: 615-532-0945 Last EDR Contact: 05/14/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018

Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 05/16/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

LUST TRUST: LUST TRUST Fund Database

This list contains information on sites that had accidental releases of petroleum and are eligible for reimbursement

from the TN Petroleum UST Fund.

Date of Government Version: 05/14/2018 Date Data Arrived at EDR: 05/15/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 17

Source: Department of Environment & Conservation

Telephone: 615-532-0971 Last EDR Contact: 05/14/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Semi-Annually

HIST_LUST CO: Leaking Underground Storage Tanks Sites

A listing of leaking underground storage tank site locations from the Columbia Field Office. The listing is no

longer updated.

Date of Government Version: 10/18/1994 Date Data Arrived at EDR: 10/24/1994 Date Made Active in Reports: 12/30/1994

Number of Days to Update: 67

Source: Department of Environmental Conservation, Columbia Field Office

Telephone: 931-380-3371 Last EDR Contact: 06/29/2009

Next Scheduled EDR Contact: 09/28/2009 Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017 Date Data Arrived at EDR: 05/30/2017 Date Made Active in Reports: 10/13/2017

Number of Days to Update: 136

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/11/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Varies

UST: Facility and Tank Report

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/14/2018 Date Data Arrived at EDR: 05/15/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 17

Source: Department of Environment and Conservation

Telephone: 615-532-0945 Last EDR Contact: 05/14/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Semi-Annually

AST: Aboveground Storage Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 10/01/1999 Date Data Arrived at EDR: 10/12/1999 Date Made Active in Reports: 11/05/1999

Number of Days to Update: 24

Source: Department of Environment and Conservation

Telephone: 615-532-0965 Last EDR Contact: 07/20/2018

Next Scheduled EDR Contact: 11/05/2018

Data Release Frequency: No Update Planned

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 05/16/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018 Date Data Arrived at EDR: 05/18/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 63

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Control Sites Sites that have engineering controls.

> Date of Government Version: 04/05/2018 Date Data Arrived at EDR: 04/10/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 52

INST CONTROL: Institutional Control Sites Sites that have institutional controls.

Date of Government Version: 04/05/2018 Date Data Arrived at EDR: 04/10/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 52

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 07/17/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Semi-Annually

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 07/17/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup, Oversight and Assistance Program Sites

The Voluntary Cleanup Oversight and Assistance Program (VOAP) offers people the opportunity to work proactively with state government to address necessary cleanup of a property to return it to productive use. In return for their efforts, participants can receive a No Further Action letter and a release of liability for areas where investigation and cleanup is conducted. The program is open to everyone with an interest in addressing contamination at a site.

Date of Government Version: 12/18/2017 Date Data Arrived at EDR: 01/05/2018 Date Made Active in Reports: 02/06/2018

Number of Days to Update: 32

Source: Department of Environmental & Conservation

Telephone: 615-532-0912 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Semi-Annually

SRP: State Remediation Program List

The State Remediation Program (SRP) was established in 1994 within the Division of Solid Waste Management for the purpose of providing owners, prospective purchasers and other interested parties the means to voluntarily investigate, clean up or monitor contaminated sites not regulated under RCRA, CERCLA or the Tennessee Division of Underground Tanks (UST).

Date of Government Version: 12/18/2017 Date Data Arrived at EDR: 01/05/2018 Date Made Active in Reports: 02/06/2018

Number of Days to Update: 32

Source: Department of Environemtn & Conservation

Telephone: 615-532-0853 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Semi-Annually

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016

Number of Days to Update: 142

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/22/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Superfund VOAP Listing

Brownfields sites included on the Superfund Voluntary Cleanup, Oversight & Assistance Program listing.

Date of Government Version: 06/27/2016 Date Data Arrived at EDR: 07/08/2016 Date Made Active in Reports: 09/14/2016

Number of Days to Update: 68

Source: Department of Environment & Conservation

Telephone: 615-532-0912 Last EDR Contact: 06/29/2018

Next Scheduled EDR Contact: 10/15/2018

Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/19/2018 Date Data Arrived at EDR: 03/21/2018 Date Made Active in Reports: 06/08/2018

Number of Days to Update: 79

Source: Environmental Protection Agency Telephone: 202-566-2777

Last EDR Contact: 06/20/2018

Next Scheduled EDR Contact: 10/01/2018 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities Listing
A listing of recycling facility locations.

Date of Government Version: 12/11/2017 Date Data Arrived at EDR: 01/25/2018 Date Made Active in Reports: 03/12/2018

Number of Days to Update: 46

Source: Department of Environment & Conservation

Telephone: 615-532-8657 Last EDR Contact: 06/14/2018

Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 01/30/2018

Next Scheduled EDR Contact: 05/14/2018 Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside

County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/17/2018

Next Scheduled EDR Contact: 11/05/2018

Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258

Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015

Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service

Telephone: 301-443-1452 Last EDR Contact: 05/04/2018

Next Scheduled EDR Contact: 08/13/2018

Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/22/2018 Date Data Arrived at EDR: 03/01/2018 Date Made Active in Reports: 05/11/2018

Number of Days to Update: 71

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/30/2018

Next Scheduled EDR Contact: 09/10/2018

Data Release Frequency: No Update Planned

CDL: Registry of Contaminated Properties

Pursuant to TCA 68212509 the following properties have been quarantined because of methamphetamine production, but have not been cleaned and certified within the 60day time frame allotted by the statute. These properties are hereby registered by the Tennessee Department of Environment and Conservation as unremediated methamphetamine sites. This is not a comprehensive list of quarantined properties. These are properties that TDEC has been notified as being quarantined, but have not been cleaned within the 60 day grace period. Other properties where methamphetamine production residues are a concern may not have been quarantined, may not have been reported to TDEC, or may not have passed the 60day grace

Date of Government Version: 04/01/2018 Date Data Arrived at EDR: 05/03/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 29

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 05/03/2018

Next Scheduled EDR Contact: 08/13/2018 Data Release Frequency: Quarterly

PRIORITY CLEANERS: DCERP Remediation Sites Listing

Drycleaner Environmental Response Program remediation sites.

Date of Government Version: 01/29/2018 Date Data Arrived at EDR: 01/30/2018 Date Made Active in Reports: 03/07/2018

Number of Days to Update: 36

Source: Department of Environment & Conservation

Telephone: 615-253-3876 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Annually

DEL SHWS: Deleted State Hazardous Waste Sites

A listing of sites removed from the Promulgated Sites Listing.

Date of Government Version: 06/27/2016 Date Data Arrived at EDR: 07/08/2016 Date Made Active in Reports: 09/14/2016

Number of Days to Update: 68

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/22/2018 Date Data Arrived at EDR: 03/01/2018 Date Made Active in Reports: 05/11/2018

Number of Days to Update: 71

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/30/2018

Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Underground Storage Tank Database

This database is no longer updated by the agency. It contains records and detail fields that the current UST database does not.

Date of Government Version: 05/14/2018 Date Data Arrived at EDR: 05/15/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 17

Source: Department of Environment & Conservation

Telephone: 615-532-0945 Last EDR Contact: 05/14/2018

Next Scheduled EDR Contact: 08/27/2018

Data Release Frequency: No Update Planned

Local Land Records

LIENS: Liens Information

A listing of sites with environmental liens information.

Date of Government Version: 03/10/2015 Date Data Arrived at EDR: 04/07/2015 Date Made Active in Reports: 04/30/2015

Number of Days to Update: 23

Source: Department of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 06/29/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018

Number of Days to Update: 30

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018 Date Data Arrived at EDR: 03/27/2018 Date Made Active in Reports: 06/08/2018

Number of Days to Update: 73

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 03/27/2018

Next Scheduled EDR Contact: 07/09/2018 Data Release Frequency: Quarterly

SPILLS: State Spills

A listing of spills locations.

Date of Government Version: 01/05/2015 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 02/10/2015

Number of Days to Update: 35

Source: Department of Environment & Conservation

Telephone: 615-532-0109 Last EDR Contact: 06/29/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/28/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 86

Source: Environmental Protection Agency

Telephone: (404) 562-8651 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015

Number of Days to Update: 97

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 05/25/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS Telephone: 888-275-8747

Last EDR Contact: 07/11/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/22/2018

Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017

Number of Days to Update: 63

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 05/15/2018

Next Scheduled EDR Contact: 08/27/2018 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/01/2018 Date Data Arrived at EDR: 03/27/2018 Date Made Active in Reports: 06/22/2018

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 06/27/2018

Next Scheduled EDR Contact: 10/08/2018 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014

Number of Days to Update: 88

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 05/07/2018

Next Scheduled EDR Contact: 08/20/2018 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018

Number of Days to Update: 73

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 05/08/2018

Next Scheduled EDR Contact: 08/20/2018 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Source: EPA

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 06/21/2017 Date Made Active in Reports: 01/05/2018 Number of Days to Update: 198

Telephone: 202-260-5521 Last EDR Contact: 06/22/2018

Next Scheduled EDR Contact: 10/01/2018 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 01/10/2018 Date Made Active in Reports: 01/12/2018

Source: EPA Telephone: 202-566-0250 Last EDR Contact: 05/25/2018

Number of Days to Update: 2

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011 Source: EPA Telephone: 202-564-4203

Number of Days to Update: 77

Last EDR Contact: 04/09/2018 Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 07/06/2018

Number of Days to Update: 30

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017 Date Data Arrived at EDR: 11/17/2017 Date Made Active in Reports: 12/08/2017

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 07/20/2018

Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013 Date Data Arrived at EDR: 10/17/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 3

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 08/20/2018 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017 Date Data Arrived at EDR: 06/09/2017 Date Made Active in Reports: 10/13/2017

Number of Days to Update: 126

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017

Number of Days to Update: 79

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 07/09/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Telephone: 202-566-1667 Last EDR Contact: 08/18/2017

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Source: EPA

Date of Government Version: 08/30/2016 Date Data Arrived at EDR: 09/08/2016 Date Made Active in Reports: 10/21/2016

Number of Days to Update: 43

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 07/23/2018

Next Scheduled EDR Contact: 11/05/2018 Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 06/07/2018

Next Scheduled EDR Contact: 09/17/2018 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 06/04/2018

Next Scheduled EDR Contact: 09/17/2018 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017 Date Data Arrived at EDR: 11/30/2017 Date Made Active in Reports: 12/15/2017

Number of Days to Update: 15

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 04/27/2018

Next Scheduled EDR Contact: 08/06/2018 Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/03/2018 Date Data Arrived at EDR: 04/05/2018 Date Made Active in Reports: 06/29/2018

Number of Days to Update: 85

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/05/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008

Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 05/03/2018

Next Scheduled EDR Contact: 08/13/2018 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2018 Date Data Arrived at EDR: 04/16/2018 Date Made Active in Reports: 06/29/2018

Number of Days to Update: 74

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 07/09/2018

Next Scheduled EDR Contact: 10/01/2018 Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 02/22/2017 Date Made Active in Reports: 09/28/2017

Number of Days to Update: 218

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 06/28/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 07/14/2015 Date Made Active in Reports: 01/10/2017

Number of Days to Update: 546

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/11/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016 Date Data Arrived at EDR: 12/27/2016 Date Made Active in Reports: 02/17/2017

Number of Days to Update: 52

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 05/07/2018

Next Scheduled EDR Contact: 08/20/2018 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017 Date Data Arrived at EDR: 10/11/2017 Date Made Active in Reports: 11/03/2017

Number of Days to Update: 23

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018 Date Data Arrived at EDR: 05/30/2018 Date Made Active in Reports: 06/29/2018

Number of Days to Update: 30

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/15/2018 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Telephone: 202-564-2496

Last EDR Contact: 09/26/2017

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017

Number of Days to Update: 100

Source: EPA

Source: EPA

Telephone: 202-564-2496 Last EDR Contact: 09/26/2017

Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually

Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2018 Date Data Arrived at EDR: 05/31/2018 Date Made Active in Reports: 06/29/2018

Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 05/31/2018

Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008

Number of Days to Update: 49

Source: USGS Telephone: 703-648-7709

Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018

Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011

Number of Days to Update: 97

Source: USGS

Telephone: 703-648-7709 Last EDR Contact: 05/30/2018

Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 03/08/2018 Date Data Arrived at EDR: 03/13/2018 Date Made Active in Reports: 06/08/2018

Number of Days to Update: 87

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/20/2018

Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018 Date Data Arrived at EDR: 02/23/2018 Date Made Active in Reports: 03/23/2018

Number of Days to Update: 28

Source: EPA Telephone: (404) 562-9900

Last EDR Contact: 06/06/2018

Next Scheduled EDR Contact: 09/17/2018 Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018 Date Data Arrived at EDR: 01/19/2018 Date Made Active in Reports: 04/13/2018

Number of Days to Update: 84

Source: Environmental Protection Agency

Telephone: 202-564-0527 Last EDR Contact: 06/01/2018

Next Scheduled EDR Contact: 09/10/2018 Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016 Date Data Arrived at EDR: 10/31/2017 Date Made Active in Reports: 01/12/2018

Number of Days to Update: 73

Source: Department of Defense Telephone: 703-704-1564 Last EDR Contact: 07/13/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 02/25/2018 Date Data Arrived at EDR: 03/17/2018 Date Made Active in Reports: 06/08/2018

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-564-2280 Last EDR Contact: 06/06/2018

Next Scheduled EDR Contact: 09/17/2018
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018 Date Data Arrived at EDR: 02/21/2018 Date Made Active in Reports: 03/23/2018

Number of Days to Update: 30

Source: EPA

Telephone: 800-385-6164 Last EDR Contact: 05/23/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Quarterly

AIRS: Listing of Permitted Sources

A listing of permitted sources issued by the Division of Air Pollution Control.

Date of Government Version: 05/01/2018 Date Data Arrived at EDR: 05/03/2018 Date Made Active in Reports: 06/04/2018

Number of Days to Update: 32

Source: Department of Environment & Conservation

Telephone: 615-532-0545 Last EDR Contact: 05/03/2018

Next Scheduled EDR Contact: 08/13/2018

Data Release Frequency: Varies

DRYCLEANERS: Registered Facilities List

A list of all active registered drycleaner facilities, There may be some inactive facilities included.

Date of Government Version: 03/21/2018 Date Data Arrived at EDR: 04/18/2018 Date Made Active in Reports: 06/01/2018

Number of Days to Update: 44

Source: Dept. of Environment & Conservation

Telephone: 615-532-0900 Last EDR Contact: 07/20/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Annually

LEAD CERT: Lead Safe Housing Registry

A listing of Tennessee properties that have achieved a lead safe designation.

Date of Government Version: 12/04/2017 Date Data Arrived at EDR: 12/06/2017 Date Made Active in Reports: 01/04/2018

Number of Days to Update: 29

Source: Department of Environment & Conservation

Telephone: 615-532-8011 Last EDR Contact: 06/01/2018

Next Scheduled EDR Contact: 09/17/2018

Data Release Frequency: Varies

NPDES: Permitted Facility Listing

A listing of permitted wastewater facilities.

Date of Government Version: 02/21/2018 Date Data Arrived at EDR: 02/22/2018 Date Made Active in Reports: 03/23/2018

Number of Days to Update: 29

Source: Department of Environment & Conservation

Telephone: 615-253-2245 Last EDR Contact: 05/23/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Quarterly

VAPOR: Vapor Intrusion

A listing of sites that have a potential for vapor intrusion

Date of Government Version: 02/21/2018 Date Data Arrived at EDR: 02/22/2018 Date Made Active in Reports: 03/23/2018

Number of Days to Update: 29

Source: Department of Environment & Conservation

Telephone: 615-532-0930 Last EDR Contact: 07/06/2018

Next Scheduled EDR Contact: 10/22/2018 Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc. Telephone: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Last EDR Contact: N/A Number of Days to Update: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment and Conservation in Tennessee.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/15/2014 Number of Days to Update: 198

Source: Department of Environment and Conservation

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment and Conservation in Tennessee.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/03/2014 Number of Days to Update: 186

Source: Department of Environment and Conservation

Telephone: N/A

Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018 Date Data Arrived at EDR: 02/14/2018 Date Made Active in Reports: 03/22/2018

Number of Days to Update: 36

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/18/2018

Next Scheduled EDR Contact: 08/27/2018

Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD

facility.

Date of Government Version: 04/30/2018 Date Data Arrived at EDR: 05/03/2018 Date Made Active in Reports: 06/07/2018

Number of Days to Update: 35

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 05/03/2018

Next Scheduled EDR Contact: 08/13/2018 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 07/25/2017 Date Made Active in Reports: 09/25/2017

Number of Days to Update: 62

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/12/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 02/23/2018 Date Made Active in Reports: 04/09/2018

Number of Days to Update: 45

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 05/21/2018

Next Scheduled EDR Contact: 09/03/2018 Data Release Frequency: Annually

VT MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

> Date of Government Version: 05/16/2018 Date Data Arrived at EDR: 05/23/2018 Date Made Active in Reports: 07/03/2018

Number of Days to Update: 41

Source: Department of Environmental Conservation

Telephone: 802-241-3443 Last EDR Contact: 07/16/2018

Next Scheduled EDR Contact: 10/29/2018 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/15/2018 Date Made Active in Reports: 07/09/2018

Number of Days to Update: 24

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/11/2018

Next Scheduled EDR Contact: 09/24/2018 Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listing Source: Department Of Human Services

Telephone: 615-313-4778

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Environment & Conservation

Telephone: 651-532-0052

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AASF # 3 JACKSON, TN JACKSON, TN 38301

TARGET PROPERTY COORDINATES

Latitude (North): 35.598395 - 35° 35' 54.22" Longitude (West): 88.913085 - 88° 54' 47.11"

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 326693.7 UTM Y (Meters): 3940891.2

Elevation: 420 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 5944486 WESTOVER, TN

Version Date: 2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

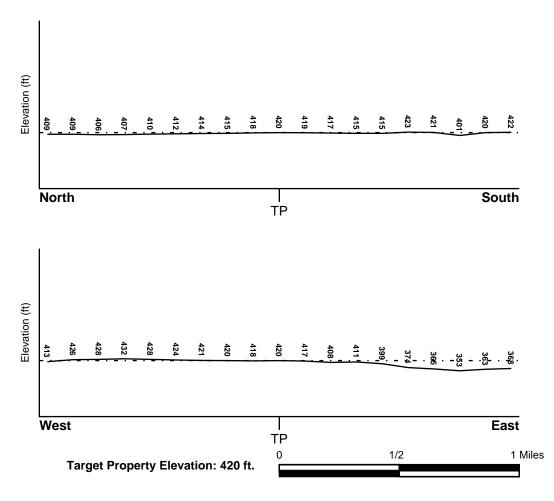
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property FEMA Source Type

47113C0260E FEMA FIRM Flood data

Additional Panels in search area: FEMA Source Type

Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property Data Coverage

WESTOVER YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era: Cenozoic Category: Stratified Sequence

System: Tertiary

Series: Eocene Claiborne Group

Code: Te2 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: GRENADA

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained. Soils have a layer of low hydraulic

conductivity, wet state high in the profile. Depth to water table is 3

to 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

			Soil Layer	Information				
	Bou	ındary		Classi	fication			
Layer	Upper Lower		Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)	
1	0 inches	5 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50	
2	5 inches	21 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50	
3	21 inches	24 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 4.50	
4	24 inches	42 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.20 Min: 0.06	Max: 6.00 Min: 4.50	
5	42 inches	60 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.20 Min: 0.06	Max: 7.30 Min: 5.10	

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: sandy loam

Surficial Soil Types: sandy loam

Shallow Soil Types: silty clay loam

Deeper Soil Types: loamy sand

loam sandy loam

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION FROM TP

LOCATION

No Wells Found

MAP ID

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

WELL ID

MAP ID WELL ID FROM TP

7 TN0002603 1/2 - 1 Mile WNW

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

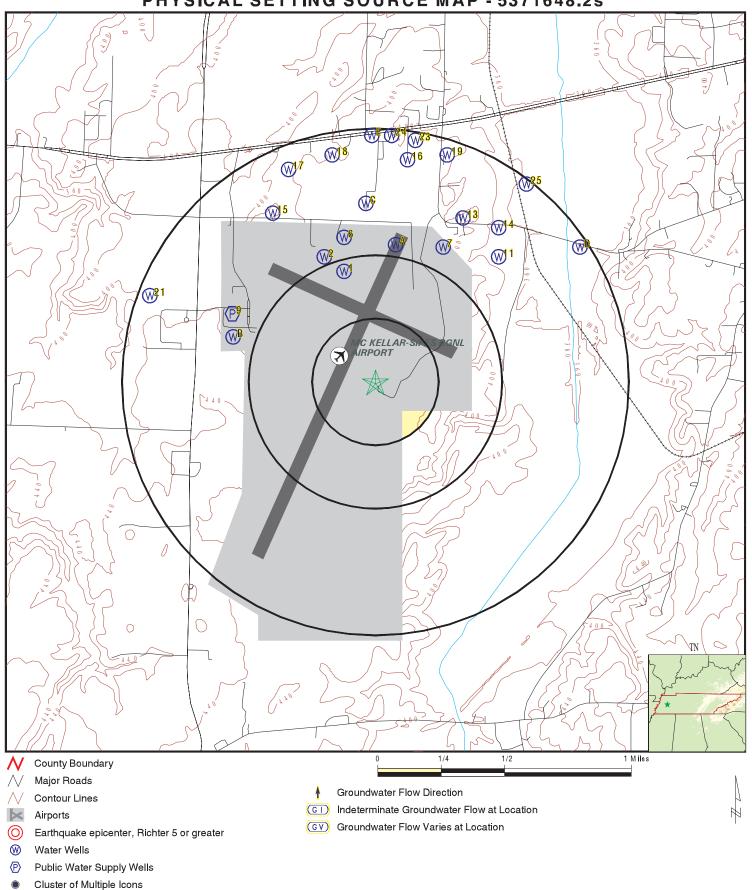
MAP ID	WELL ID	FROM TP
1	TN6000000084961	1/4 - 1/2 Mile NNW
2	TN600000084394	1/2 - 1 Mile NNW
A3	TN600000085085	1/2 - 1 Mile North
B4	TN600000084934	1/2 - 1 Mile WNW
A5	TN6000000085084	1/2 - 1 Mile NNE
6	TN6000000085408	1/2 - 1 Mile NNW
7	TN6000000213473	1/2 - 1 Mile NNE
B8	TN6000000084866	1/2 - 1 Mile WNW
C10	TN6000000084205	1/2 - 1 Mile North
11	TN6000000086570	1/2 - 1 Mile NE
C12	TN6000000085142	1/2 - 1 Mile North
13	TN6000000086250	1/2 - 1 Mile NNE
14	TN600000084181	1/2 - 1 Mile NE
15	TN6000000085094	1/2 - 1 Mile NNW
16	TN6000000181913	1/2 - 1 Mile North
17	TN6000000222160	1/2 - 1 Mile NNW
18	TN6000000085302	1/2 - 1 Mile North
19	TN6000000172772	1/2 - 1 Mile NNE
D20	TN6000000084439	1/2 - 1 Mile ENE
21	TN6000000161063	1/2 - 1 Mile WNW

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
E22	TN6000000085471	1/2 - 1 Mile North
23	TN6000000085585	1/2 - 1 Mile North
24	TN600000086089	1/2 - 1 Mile North
25	TN6000000084392	1/2 - 1 Mile NE
D26	TN6000000084203	1/2 - 1 Mile NE
E27	TN600000084098	1/2 - 1 Mile North

PHYSICAL SETTING SOURCE MAP - 5371648.2s



SITE NAME: AASF # 3 Jackson, TN Jackson TN 38301 ADDRESS:

LAT/LONG: 35.598395 / 88.913085

CLIENT: AECOM CONTACT: Brittany Kirchmann INQUIRY #: 5371648.2s

DATE: July 24, 2018 4:46 pm

Map ID Direction Distance

Elevation Database EDR ID Number

NNW

1/4 - 1/2 Mile Lower

> County nam: MADISON Well numbr: 11301087 Driller na: MARCH O. Addr line1: Not Reported License co: Cmpltn dat: 17-SEP-71 Latitude: 353617 Cmpltn tot: 140 Cmpltn est: 0 0439NW6 WIts quad: Not Reported

Driller ta: Longitude: 885455 Accuracy: S Casing fee: 136 Wbz: 100 Descriptio:

Not Reported Driller re: 1406945

TN6000000084961 Site id:

NNW **TN WELLS** TN6000000084394

1/2 - 1 Mile Lower

> MADISON County nam: Well numbr: 11300518 Driller na: **MCGOWEN** Addr line1: Not Reported License co: 395 Cmpltn dat: 18-JUL-67 Latitude: 353620 Cmpltn tot: 100 Cmpltn est: Wlts quad: 0439NW6 Driller ta: Not Reported

Longitude: 885500 Accuracy: S Casing fee: 0 Wbz: 85 Descriptio: Residential Driller re: 1406378

TN6000000084394 Site id:

А3 North 1/2 - 1 Mile Lower

TN WELLS TN6000000085085

TN WELLS

TN6000000084961

County nam: MADISON
Well numbr: 11301211
Driller na: MARCH E
Addr line1: Not Reported

License co: 52 Cmpltn dat: 26-JAN-73

Latitude: 353622 Cmpltn tot: 142 Cmpltn est: 0

 Wilts quad :
 0439NW6

 Driller ta:
 Not Reported

 Longitude:
 885444

 Accuracy:
 S

 Casing fee:
 138

 Wbz:
 105

Descriptio: Not Reported Driller re: 1407069

Site id: TN6000000085085

B4 WNW TN WELLS TN600000084934

1/2 - 1 Mile Lower

County nam: MADISON Well numbr: 11301060

Driller na: J & M COUNTY AIRPORT

Addr line1: Not Reported

License co: 466 Cmpltn dat: 15-FEB-71 Latitude: 353604 Cmpltn tot: 145 Cmpltn est: 100 WIts quad: 0438SW2 Driller ta: Not Reported Longitude: 885521 Accuracy: S Casing fee: 145 Wbz: 60

Descriptio: Commercial Driller re: 1406918

Site id: TN600000084934

A5 NNE TN WELLS TN600000085084

NNE TN WELLS TN600000008508 1/2 - 1 Mile Lower

County nam: MADISON
Well numbr: 11301210
Driller na: MARSHALL L P
Addr line1: Not Reported

 License co:
 52

 Cmpltn dat:
 26-JAN-73

 Latitude:
 353623

 Cmpltn tot:
 118

 Cmpltn est:
 0

Wlts quad: 0439NW6

Driller ta:

Not Reported
885440
Accuracy:
S
Casing fee:
114
Wbz:
90

Descriptio: Not Reported
Driller re: 1407068

Site id: TN6000000085084

NNW TN WELLS TN600000085408 1/2 - 1 Mile

Lower

County nam: MADISON Well numbr: 11301536

Driller na: J&M COUNTY AIRPORT

Addr line1: Not Reported

 License co:
 52

 Cmpltn dat:
 24-JAN-75

 Latitude:
 353624

 Cmpltn tot:
 105

 Cmpltn est:
 0

Wits quad: 0438SW3

Driller ta: Not Reported

Longitude: 885455

Accuracy: S

Casing fee: 101

Wbz: 90

Descriptio: Commercial Driller re: 1407392

Site id: TN600000085408

7 NNE TN WELLS TN6000000213473 1/2 - 1 Mile

Lower

County nam: MADISON Well numbr: 93004296 Driller na: SCULLY, TOM Addr line1: AIRWAY'S License co: 565 Cmpltn dat: 04-OCT-93 Latitude: 353622 Cmpltn tot: 128 Cmpltn est: 18 0438SW3 WIts quad: Driller ta: Not Reported 885430 Longitude: Accuracy: S Casing fee: 118 Wbz: 0

Descriptio: Residential Driller re: 1278333

Site id: TN6000000213473

Map ID Direction Distance

Elevation Database EDR ID Number

B8 WNW TN WELLS TN600000084866 1/2 - 1 Mile

Higher

Lower

County nam: MADISON Well numbr: 11300992

Driller na: JACKSON-MADISON

Addr line1: Not Reported License co: Cmpltn dat: 01-APR-71 Latitude: 353603 Cmpltn tot: 156 Cmpltn est: 200 WIts quad: 0438SW2 Driller ta: Not Reported Longitude: 885525 Accuracy: S

 Longitude:
 885525

 Accuracy:
 S

 Casing fee:
 130

 Wbz:
 130

 Descriptio:
 Industrial

 Driller re:
 1406850

Site id: TN6000000084866

WNW FRDS PWS TN0002603 1/2 - 1 Mile

Epa region: 04 State: TN

Pwsid: TN0002603
Pwsname: JACKSON-MADISON CO AIRPORT

ΤN City served: Not Reported State served: 47113 Zip served: Not Reported Fips county: Closed Pop srvd: 350 Status: Source: Groundwater Pwssvcconn: 15

Pws type: NTNCWS Owner: Local_Govt

Contact: Not Reported Contactor gname: Not Reported

Contact phone: 901-423-0995 Contact address1: MCKELLER FIELD Contact address2: Not Reported Contact city: JACKSON Contact state: TN Contact zip: 383020068

Activity code:

Facid: TP001 Facname: WELL

Facility type: Treatment_plant Activity code: I

Treatment obj: corrosion control Treatment process: inhibitor, polyphosphate Treatment obj: disinfection Treatment process: hypochlorination, post

Location Information:

Name: JACKSON-MADISON CO AIRPORT

Pwstypcd: NTNCWS Primsrccd: GW

Popserved: 350

Add1: MCKELLER FIELD Add2: Not Reported

City: JACKSON State: TN

 Zip:
 383020068
 Phone:
 901-423-0995

 Cityserv:
 Not Reported
 Cntyserv:
 Not Reported

 Stateserv:
 TN
 Zipserv:
 Not Reported

PWS ID: TN0002603

Date Initiated: 7706 Date Deactivated: Not Reported

PWS Name: JACKSON-MADISON CO AIRPORT

MCKELLER FIELD JACKSON, TN 38301

Addressee / Facility: Not Reported

Facility Latitude: 35 36 51 Facility Longitude: 088 48 50 Facility Latitude: 35 36 08 Facility Longitude: 088 55 23

City Served: Not Reported

Treatment Class: Treated Population: 00000350

Violations information not reported.

C10
North
TN WELLS
TN600000084205
1/2 - 1 Mile

Lower

County nam: MADISON
Well numbr: 11300329
Driller na: SHOE B
Addr line1: Not Reported

License co: 101

 Cmpltn dat:
 20-AUG-65

 Latitude:
 353630

 Cmpltn tot:
 73

 Cmpltn est:
 0

 Wlts quad :
 0438SW3

Driller ta:

Longitude:
Accuracy:
Casing fee:
Wbz:

Not Reported
885448
S5448
69
Wbz:
0

Descriptio: Residential Driller re: 1406189

Site id: TN600000084205

TN WELLS TN600000086570 1/2 - 1 Mile

Lower

County nam: MADISON Well numbr: 11302740

Driller na: SCULLEY'S GOLF COURS

OLD #70 Addr line1: License co: 441 Cmpltn dat: 07-SEP-84 Latitude: 353620 Cmpltn tot: 120 Cmpltn est: 35 Wits quad: 0438SW3 Driller ta: Not Reported

 Driller ta:
 Not Repo

 Longitude:
 885416

 Accuracy:
 F

 Casing fee:
 90

 Wbz:
 80

 Descriptio:
 Irrigation

 Driller re:
 1408554

Site id: TN600000086570

C12 North TN WELLS TN600000085142

1/2 - 1 Mile Lower

County nam: MADISON
Well numbr: 11301268
Driller na: WILLIAMSON D
Addr line1: Not Reported

 License co:
 101

 Cmpltn dat:
 28-SEP-72

 Latitude:
 353632

 Cmpltn tot:
 75

 Cmpltn est:
 0

WIts quad: 0438SW3 Driller ta: Not Reported Longitude: 885451 Accuracy: S Casing fee: 72 Wbz: 65 Descriptio: Farm 1407126 Driller re:

Site id: TN6000000085142

13

NNE TN WELLS TN6000000086250 1/2 - 1 Mile Lower

County nam: MADISON
Well numbr: 11302395
Driller na: HASKINS W.L.
Addr line1: Not Reported

 License co:
 441

 Cmpltn dat:
 02-FEB-82

 Latitude:
 353628

 Cmpltn tot:
 120

 Cmpltn est:
 18

 Wlts quad :
 0438SW3

Driller ta: Not Reported Longitude: 885425 Accuracy: S Casing fee: 100 Wbz: 70 Residential

Descriptio: Driller re: 1408234

Site id: TN6000000086250

TN6000000084181 **TN WELLS** 1/2 - 1 Mile

Lower

County nam: **MADISON** Well numbr: 11300305 Driller na: CHESHIRE Addr line1: Not Reported License co: 101

Cmpltn dat: 25-JUN-65 Latitude: 353626 Cmpltn tot: 38 Cmpltn est: 0

Wlts quad: 0438SW3 Driller ta: Not Reported Longitude: 885416 Accuracy: S Casing fee: 34 Wbz: 0 Descriptio: Industrial

Driller re: 1406165

TN6000000084181 Site id:

15 NNW **TN WELLS** TN6000000085094 1/2 - 1 Mile

Lower

County nam: MADISON 11301220 Well numbr: Driller na: RICH B Addr line1: Not Reported

License co: 52 Cmpltn dat: 12-DEC-72 Latitude: 353629 Cmpltn tot: 105 Cmpltn est: 0

0438SW2 WIts quad: Driller ta: Not Reported 885513 Longitude: Accuracy: S Casing fee: 101 Wbz: 60

Not Reported Descriptio: Driller re: 1407078

TN6000000085094 Site id:

Map ID Direction Distance

Elevation Database EDR ID Number

North TN WELLS TN6000000181913

1/2 - 1 Mile Lower

County nam: MADISON Well numbr: 20081331

Driller na: RANDOLPH NURSERY Addr line1: 1650 AIRWAYS BLVD

License co: Cmpltn dat: 17-MAR-08 Latitude: 353640 Cmpltn tot: 200 Cmpltn est: 150 WIts quad: 0438SW3 Driller ta: D0083284 Longitude: 885439 Accuracy: F

Casing fee: 160
Wbz: 160
Descriptio: Commercial
Driller re: 1512369

Site id: TN6000000181913

17 NNW TN WELLS TN6000000222160

1/2 - 1 Mile Lower

County nam: MADISON Well numbr: 95002562

Driller na: JACKSON TRACTOR

Addr line1: HWY 70 License co: 565 Cmpltn dat: 02-JUN-95 Latitude: 353638 Cmpltn tot: 105 Cmpltn est: 10 0438SW2 Wlts quad: Driller ta: D0004046 Longitude: 885509

 Accuracy:
 F

 Casing fee:
 95

 Wbz:
 0

 Descriptio:
 Other

 Driller re:
 1287022

Site id: TN6000000222160

18
North
17 WELLS
18
TN WELLS
TN600000085302
1/2 - 1 Mile
Lower

TC5371648.2s Page A-16

County nam: MADISON
Well numbr: 11301430
Driller na: EVANS J.
Addr line1: Not Reported

License co: 441

 Cmpltn dat:
 16-DEC-73

 Latitude:
 353641

 Cmpltn tot:
 125

 Cmpltn est:
 15

 Wlts quad :
 0438SW3

 Driller ta:
 Not Reported

 Longitude:
 885458

Accuracy: S
Casing fee: 120
Wbz: 95

Descriptio: Residential Driller re: 1407286

Site id: TN6000000085302

1/2 - 1 Mile Lower

County nam: MADISON
Well numbr: 20062380
Driller na: HUNT, LAMAR
Addr line1: 109 ANGLIN LANE

License co: 119 Cmpltn dat: 09-MAY-06 Latitude: 353641 Cmpltn tot: 115 Cmpltn est: 12 WIts quad: 0438SW3 Driller ta: D0073872 Longitude: 885429 Accuracy: F Casing fee: 105 Wbz: 115 Descriptio: Residential

Driller re: Residential 1502514

Site id: TN6000000172772

D20 ENE TN WELLS TN600000084439

ENE TN WELLS TN600000008443
1/2 - 1 Mile
Lower

County nam: MADISON
Well numbr: 11300563
Driller na: DICKERSON INC
Addr line1: Not Reported
License co: 101

 Cmpltn dat:
 17-MAY-67

 Latitude:
 353621

 Cmpltn tot:
 32

 Cmpltn est:
 10

 Wlts quad :
 0438SW3

Driller ta:
Longitude:
885356
Accuracy:
S
Casing fee:
Wbz:
15
Descriptio:
Other
Driller re:
1406423

Site id: TN6000000084439

21 WNW TN WELLS TN6000000161063 1/2 - 1 Mile

Lower

County nam: MADISON Well numbr: 20033353

Driller na: H & M CONSTRUCTION

Addr line1: SMITH LANE

License co: 597 Cmpltn dat: 26-AUG-03 Latitude: 353612 Cmpltn tot: 162 Cmpltn est: 250 Wlts quad: 0438SW2 Driller ta: D0057443 Longitude: 885544 Accuracy: F Casing fee: 122 Wbz: 120

Descriptio: Commercial Driller re: 1490056

Site id: TN6000000161063

E22
North
1/2 - 1 Mile
TN WELLS
TN6000000085471

Lower

County nam: MADISON Well numbr: 11301600

Driller na: K.H JEHOVA WITNESS

Addr line1: Not Reported

License co: 52

 Cmpltn dat:
 09-JUN-75

 Latitude:
 353644

 Cmpltn tot:
 105

 Cmpltn est:
 0

 Wlts quad :
 0438SW3

Descriptio: Not Reported Driller re: 1407455

Site id: TN6000000085471

Map ID Direction Distance

Elevation Database EDR ID Number

23 North TN WELLS TN600000085585

1/2 - 1 Mile Lower

County nam: MADISON
Well numbr: 11301722
Driller na: UNKNOWN431
Addr line1: Not Reported
License co: 740

License co: 740

Cmpltn dat: Not Reported Latitude: 353644
Cmpltn tot: 0
Cmpltn est: 0

 Wits quad :
 0438SW3

 Driller ta:
 Not Reported

 Longitude:
 885437

 Accuracy:
 S

 Casing fee:
 0

 Wbz:
 0

Descriptio: Commercial Driller re: 1407569

Site id: TN6000000085585

24
North TN WELLS TN600000086089
1/2 - 1 Mile

Lower

County nam: MADISON Well numbr: 11302231

Driller na: GOLDEN CIRCLE IMPLEM

Addr line1: Not Reported
License co: 441
Cmpltn dat: 28-FEB-80
Latitude: 353645
Cmpltn tot: 150
Cmpltn est: 0

Wlts quad: 0438SW3 Driller ta: Not Reported Longitude: 885443 Accuracy: S Casing fee: 135 100 Wbz: Descriptio: Industrial Driller re: 1408073

Site id: TN600000086089

25
NE
TN WELLS
1/2 - 1 Mile
Lower

TN6000000084392

County nam: **MADISON** Well numbr: 11300516 Driller na: MARSHEL G Addr line1: Not Reported License co: 395 Cmpltn dat: 06-JUN-67

Latitude: 353635 Cmpltn tot: 100 Cmpltn est: 0

Wits quad: 0439NW6 Not Reported Driller ta: Longitude: 885409 Accuracy: S Casing fee: 100 Wbz: 80

Descriptio: Residential Driller re: 1406376

Site id: TN6000000084392

D26 NE TN6000000084203 **TN WELLS**

1/2 - 1 Mile Lower

> County nam: MADISON 11300327 Well numbr: Driller na: BOOKER R Addr line1: Not Reported

License co: 101 03-AUG-65 Cmpltn dat: Latitude: 353623 28 Cmpltn tot: Cmpltn est: 0

WIts quad: 0438SW3 Driller ta: Not Reported Longitude: 885355 Accuracy: S Casing fee: 24 Wbz: 0

Descriptio: Residential 1406187 Driller re:

TN6000000084203 Site id:

E27

North 1/2 - 1 Mile **TN WELLS** TN6000000084098 Lower

County nam: **MADISON** 11300221 Well numbr: Driller na: JONES W Addr line1: Not Reported License co: 52

Cmpltn dat: 13-JUN-64 Latitude: 353646 Cmpltn tot: 103 Cmpltn est:

Wlts quad: 0438SW3

Driller ta:
Longitude:
885448
Accuracy:
S
Casing fee:
103
Wbz:
70
Descriptio:
Residential

Descriptio: Residential Driller re: 1406082

Site id: TN600000084098

AREA RADON INFORMATION

State Database: TN Radon

Radon Test Results

County	Total Sites	Avg	Max	<4 pCi/L	4-10 pCi/L	10-20 pCi/L	20-50 pCi/L	50-100 pCi/L	>100 pCi/L
		_	_						
MADISON	20	1.5	4.6	19	1	0	0	0	0

Federal EPA Radon Zone for MADISON County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 38301

Number of sites tested: 5

Area Average Activity % <4 pCi/L % 4-20 pCi/L % >20 pCi/L Living Area - 1st Floor 1.040 pCi/L 100% 0% 0% Living Area - 2nd Floor Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported Basement Not Reported Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Environment & Conservation

Telephone: 651-532-0052

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

County Water Wells in Tennessee

Source: Department of Environment and Conservation

Telephone: 615-532-0191

Water well locations for the entire state.

OTHER STATE DATABASE INFORMATION

RADON

State Database: TN Radon

Source: Department of Environment & Conservation

Telephone: 615-299-9725 Radon Test Results

Area Radon Information Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Appendix B Preliminary Assessment Documentation

Appendix B.1 Interview Records

PA Interview Questionnaire - Environmental Manager

Facility: AASF #3
Interviewer: Stinger/Davis
Date/Time: 3/23/2018

Interviewee: CWS John Mc Connell Title: Logishes Man Officer Phone Number: Email: John Mc Connell O most mil 1. Roles or activities with the Facility/years work					
	August 2003, prior @ Snyrne				
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	nformation? Vestroyed by tonado - An'ARNO lober 2003 1999 - No prier knat				
3. What can you tell us about the history of PFAS including aqueous film forming foam (AFFF) at the Facility? Was it used for any of the following activities, circle all that apply and indicate years of active use, if known? Identify these locations on a facility map. Maintenance Fire Training Areas Firefighting (Active Fire) Crash Fire Suppression Systems (Hangers/Dining Facilities) Fire Protection at Fueling Stations Non-Technical/Recreational/ Pest Management Metals Plating Facility Waterproofing Uniforms (Laundry Facilities) Other No offer USI					
4. Fill out CSM Information worksheet with the					
What are the AFFF/suppression system test re AFFF/suppression system? Do you have "As I	FFF dispensing systems or fire suppression systems? quirements? What is the frequency of testing the Built" drawings for the buildings? Laker and who draw Lucked recharge of system				
spinkle heads a	bore lighting so no fill scale to				

Spenkle heads above lighting so no fill scale test.
They test on stack out (with sample pulled) but no Afficiense system test. Construction test?

Un known. 2 year contract over before they possessed. Contractor bankrupt so no records.

PA Interview Questionnaire - Environmental Manager

Facility: AASF #3 Interviewer: Stinger/Davis Date/Time: 3/23/2018 McConnell p2 Are fire suppression systems currently charged with AFFF or have they been retrofitted for use of high expansion foam? If retrofitted, when was that done? No (system design flow so closed off I not connected to AFFF) No resoft. 7. How is AFFF procured? Do you have an inventory/procurement system that tracks use? No procurement into here 8. What type of AFFF has been/is being used (3%, 6%, Mil Spec Mil-F-24385, High Expansion)? Manufacturer (3M, Dupont, Ansul, National Foam, Angus, Chemguard, Buckeye, Fire Service Plus)? Afff stored but not used in emergency will use NOVEC cot. In emergency will 9. Where is the AFFF stored? How is it stored (tanks, 55-gallon drums, 5-gallon buckets)? What size are the storage tanks? Is the AFFF stored as a mixed solution (3% or 6%) or concentrated material?

10. How many FTAs are/were on this facility and where are they? Locate on a map. How many FTAs are active and inactive? For inactive FTAs, when was the last time that fire training using AFFF

was conducted at them?

PA Interview Questionnaire - Environmental Manager

Facility:_AASF #3
Interviewer:_Stinger/Davis
Date/Time:_3/23/2018

McConnell p3

11. When a release of AFFF occurs during a fire training exercise, now and in the past, how is the AFFF cleaned and disposed of? Were retention ponds built to store discharged AFFF? Was the AFFF trickled to the sanitary sewer or left in the pond to infiltrate?

sanitary sever -> WNTP

12. Can you recall specific times when city, county, and/or state personnel came on-post for training? If so, please state which state/county agency or military entity? Do you have any records, including photographs to share with us?

don't bring anything with them I use HASF#3's supplies

13. Did military routinely or occasionally fire train off-post? List the units that you can recall used/trained at various areas.

14. Did individual units come with their own safety personnel, did they also bring their own AFFF? Was training with AFFF part of these exercises? How were emergencies handled under these circumstances?

Arrport Fire Trick - different from Madison Co. F.D.

15. Are there specific emergency response incident reports (i.e., aircraft or vehicle crash sites and fires)? If so, may we please copy these reports? Who (entity) was the responder?

PA	Interview	Questionnaire -	Environmental	Manager
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Facility: AASF #3
Interviewer: Stinger/Davis
Date/Time: 3/23/2018

Date/Time:3/23/2018 McConnell p4
16. Do you have records of fuel spill logs? Was it common practice to wash away fuel spills with AFFF? Is/was AFFF used as a precaution in response to fuel releases or emergency runway landings to prevent fires? Arport contractor delivers, No records of spills over gallon. No records of other spills
17. Was AFFF used for forest fires or fire management on-post/off-post? If so, please describe what happened and who was involved?
19. Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste treatment plants, and AFFF ponds)?
POL lochers × 2 conts on line and sealed cons slored in bldg by longer and GSE Bldg lock is hanger room.
1) flight line - Never dispensed
20. Are you aware of any other creative uses of AFFF? If so, how was AFFF used? What entities were involved?
No

PA Interview Questionnaire - Environmental Manager

Facility: AASF #3
Interviewer: Stinger/Davis
Date/Time: 3/23/2018
McConnell p5

21. Are there past studies you are aware of with environmental information on plants/animals/ groundwater/soil types, etc., such as Integrated Cultural Resources Management Plans or Integrated Natural Resources Management Plans? 22. What other records might be helpful to us (environmental compliance, investigation records, admin ge avoil from TN Environ. record) and where can we find them? 23. Do you have or did you have a chrome plating shop on base? What were/are the years of operation of that chrome plating shop? 1/0 24. Do you know whether the shop has/had a foam blanket mist suppression system or used a fume hood for emissions control? If foam blanket mist suppression was used, where was the foam Yes hanger system but never dispense testing. All other testing had some discharge to OWS -> WWTP stored, mixed, applied, etc.? 25. How is off-spec AFFF disposed (used for training, turned in, or given to a local Fire Station)? If applicable, do you know the name of the vendor that removes off-spec AFFF? Do you have copies of Not disposed only small dischy. the manifest or B/L?

PA Interview Questionnaire - Environmental Manager

Facility:_AASF #3
Interviewer:_Stinger/Davis
Date/Time:_3/23/2018
McConnell p6

26. Do you recommend anyone else we can interview? If so, do you have contact information for them?

No

PA	Inte	erview	Oue	estion	maire	- C)thei
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Facility: AASF #3
Interviewer: Sprg 72016
Date/Time: 5/26/2016

Interviewee: SGT Rilly Sealed Can your name/role be used in the	DA Reports Var N
interviewee.	
Title: Add / Doby the Merstell Can you recommend anyone we commend any commend and anyone we commend anyone we commend anyone we commend any commend and any commend	an interview?
Phone Number: York York	=====
Email: esthon. sanford@mail.mil	
Roles or activities with the Facility/Years working at the Facility:	
Acquired NOVEC 1230 gas form of relaide	
Acquired NOVEC 1230 gas form of relander Expersive but replaced at no cos No film, no electronic impacts - pro le transport carts 35 gallar each	of mehle cont
Expensive but replaced at no cos	t by veryor
No film, no electronic impacts -po	efebred ove AFA
1. transport costs 35 gallon eac.	2 ocquired
	0
	C. I
PFAS Use: Identify accidental/intentional release locations, time frame of release, fre	equency of releases,
storage container size (maintenance, fire training, firefighting, buildings with suppres builts), fueling stations, crash sites, pest management, recreational, dining facilities,	netale plating or
waterproofing). How are materials ordered/purchased/disposed/shared with others?	notals plating, of
waterproofing). How are materials ordered parenased dispessed stated with extensi	Wasser Hose
Ong. Hongor five suppression system	Known Uses
shill in price Due to design flow (abo	Use
electros Replacement needed, In case of five,	Procurement
as suched the wet system will impect electric sys.	Disposition
So they Deod lined system	Storage (Mixed)
They have NOVEC system in hangar	Storage (Solution)
in case the AFF system does	Inventory, Off-Spec
not work (carts)	Containment
	SOP on Filling
	Leaking Vehicles
Also Concerned about when wessure	Nozzle and Suppression System Testing
(Lala)) as AASE #3 last outlet' at	Dining Facilities
(foo low) as AMSF #3 last outlet' at	Vehicle Washing
an fort our and system	Ramp Washing
	Fuel Spill Washing and
*	Fueling Stations
	Chrome Plating or Waterproofing

Sanford p2

ANSEL 3-wheeled corts 33 gallon x 3 carts = old carts awaking disposal training vsvally done at wash rack where drains to ows = wwith (washrack is, on flight line) all draining goes to ows = the airports	
training usually done of wash rack	ANSEL 3-Wheeled certs
training usually done of wash rack	33 gallon x 3 carts = old conts
training usually done of wash rack	awaiting disposed
	traning usvelly done of Josh rock
	Lusters donners to DWS - 2 MWTP
(washrack is on flight line) all drainage goes to ows - the airports	
all drainage goes to ows - the airports	Cucked
all drainage goes to ows - the amports	To flott line)
au wang you res re eas - 17th airports	all days as sees to a see the
	all croining goes to eas - The air ports

Interviewee: Taylor Rushing, McKellar-Sipes Airport Fire Dept	Can your name/role be used in the PA Report? Y	
Title Fire Chief	Can you recommend anyone we can interview?	
Phone: 731.423.0995 x7508		
Email: taylor@mckellarsipes.com		
1.Roles or activities with the Facility/years working at the Facility Began working at airport in 1983 as part-time fireman employed be 2014, hired as full-time Fire Chief by the Airport Authority		
2. What can you tell us about the history of AFFF at the Facility? Vacinities, circle all that apply and indicate years of active use, if k facility map.		
Storage Crash – 2016 King Air, into airport weather station, SE of runway Demonstrating fire response to FAA inspector annually - midfield		
3.Are any current buildings constructed with AFFF dispensing systems? What are the AFFF/suppression system test requirements? Vat the AFFF/suppression systems? No knowledge of buildings with AFFF systems		
4.Are fire suppression systems currently charged with AFFF or ha high expansion foam? N/A	ve they been retrofitted for use of	
5.How is AFFF procured? Do you have an inventory/procurement He purchases from the internet from least expensive supplier, mos		

6. What type of AFFF has been/is being used?
6%, brand varies, most recently purchased Buckeye
8. Is AFFF formulated on base? If so, where is the solution mixed, contained, transferred, etc.?
No
9. Where is the AFFF stored? How is it stored (tanks, 55-gallon drums, 5-gallon buckets)? What
size are the storage tanks? Is the AFFF stored as a mixed solution (3% or 6%) or concentrated
material? Stored in 5-gallon buckets (6%) in fire station
10. How is the AFFF transferred to emergency response vehicles, suppression systems, flightline extinguishers? Is/was there a specified area on the facility where vehicles are filled with AFFF and
does this area have secondary containment in case of spills? How and where are vehicles storing
AFFF cleaned/decontaminated? Transferred from 5-gallon buckets directly into their two trucks
11 Dec 11 11 11 11 11 11 11 11 11 11 11 11 11
11. Provide a list of vehicles that carried AFFF, now and in the past, and where are/were they located?, Large fire truck has 500-gallon AFFF tank, small truck has 150-gallon AFFF tank Trucks are housed inside
the fire station when not in use.
13. Any vehicles have a history of leaking AFFF? Do you/did you test the vehicles spray patterns to make
sure equipment is working properly? How often are/were these spray tests performed and can you provide the locations of these tests, now and in the past?
No history of AFFF leaks, water only is used to test nozzles.

12. How many FTAs are/were on this facility and where are they? Locate on a map. How many FTAs are active and inactive? For inactive FTAs, when was the last time that fire training using AFFF was conducted at them? They don't currently or previously have FTA, personnel conduct live fire training annually offsite in Millington TN
13. What types of fuels/flammables were used at the FTAs? N/A
14. What was the frequency of AFFF use at each location? When a release of AFFF occurs during a fire training exercise, now and in the past, how is/was the AFFF cleaned and disposed of? Were retention ponds built to store discharged AFFF? Was the AFFF trickled to the sanitary sewer or left in the pond to infiltrate? Annually FAA requires the FD to demonstrate emergency response readiness by staging a simulated fire typically mid-field and FD personnel are timed on their response. During these exercises they are required to dispense a small amount "squirt" of AFFF, estimated no more than 5-gallons during each annual demonstration. AFFF is not recovered and is allowed to drain off pavement and infiltrate into the ground
15. Are there mutual aid/use agreements between county, city, local fire department? Please list, even if informal. If formalized, may we have a copy of the agreement? Can you recall specific times when city, county, state personnel came on-post for training? If so, please state which state/county agency, military entity? Do you have any records, including photographs to share with us? Informal agreement. Madison Co FD (leases property on airport from City of Jackson) provides backup support to the airport FD.
16.Did individual units come on-post with their own safety personnel, did they also bring their own AFFF? Was training with AFFF part of these exercises? How were emergencies handled under these circumstances? No

17.	Did military routinely or occasionally fire train off-post? List units that you can recall used/trained at various areas. N/A
18.	Are there specific emergency response incident reports (i.e., aircraft or vehicle crash sites and fires)? If so, may we please copy these reports? Who (entity) was the responder? The Airport FD responded to a crash on 9/21/2016 at 4:20p of a King Air aircraft which crashed into the airport weather station SE end of the runway (~600-800 yards from AASF#3). The incident occurred because the landing gear failed to operate and a fire ensued. A total of 55-gallons of AFFF was used to extinguish the fire. Incident report available and will be faxed.
19.	Do you have records of fuel spill logs? Was it common practice to wash away fuel spills with AFFF? Is/was AFFF used as a precaution in response to fuel releases or emergency runway landings to prevent fires? No other releases (spills/leaks/etc) but the fire station does have floor drains that convey fluids to City wastewater treatment system.
20.	Was AFFF used for forest fires or fire management on-post/off-post? If so, please describe what happened and who was involved? No
21.	Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds)? No

22. Are you aware of any other creative uses of AFFF? If so, how was AFFF used? What entities were involved? No
23. How is off-spec AFFF disposed (used for training, turned in, or given to a local Fire Station)? If applicable, do you know the name of the vendor that removes off-spec AFFF? Do you have copies of the manifest or B/L? Have never had waste AFFF to dispose. Required to maintain enough AFFF to fill trucks 2x, (equates to storage of 650 gallons on 2 trucks and 650 gallons reserve stored in 5-gallon buckets)
24. Do you recommend anyone else we can interview? If so, do you have contact information for them? No

Interviewee: Eric Turner, Madison Co Fire Dept	Can your name/role be used in the PA Report? Y
Title Fire Chief	Can you recommend anyone we can interview?
Phone: 731.424.5577	
Email: eturner@madisoncountytn.gov	
1.Roles or activities with the Facility/years working at the Facility. With FD since 1983	
2. What can you tell us about the history of AFFF at the Facility? W tivities, circle all that apply and indicate years of active use, if know ity map.	
Storage only in building at north end of airport, next to tower. Addr 38301	ress: 2432 Technology Dr., Jackson TN
3.Are any current buildings constructed with AFFF dispensing systetems? What are the AFFF/suppression system test requirements? Wat the AFFF/suppression systems? No AFFF systems	
4.Are fire suppression systems currently charged with AFFF or hav high expansion foam? N/A	e they been retrofitted for use of
5.How is AFFF procured? Do you have an inventory/procurement s Purchases from EVS (Emergency Vehicle Specialist) in Memphis T	

6. What type of AFFF has been/is being used? 3% and 6%, brand varies
7. Is AFFF formulated on base? If so, where is the solution mixed, contained, transferred, etc.? No
8. Where is the AFFF stored? How is it stored (tanks, 55-gallon drums, 5-gallon buckets)? What size are the storage tanks? Is the AFFF stored as a mixed solution (3% or 6%) or concentrated material?
Stored in 5-gallon buckets in administration building
9. How is the AFFF transferred to emergency response vehicles, suppression systems, flightline extinguishers? Is/was there a specified area on the facility where vehicles are filled with AFFF and does this area have secondary containment in case of spills? How and where are vehicles storing AFFF cleaned/decontaminated? 5-gallon buckets are stored on their trucks. The trucks are outfitted with eductors that draw AFFF
from the buckets, and stream it with water. When trucks run out, they come to administration building to pickup new buckets. No floor drains in building.
10. Provide a list of vehicles that carried AFFF, now and in the past, and where are/were they located? 20 pumper trucks at 17 locations throughout the County
11. Any vehicles have a history of leaking AFF? Do you/did you test the vehicles spray patterns to make sure equipment is working properly? How often are/were these spray tests performed and can you provide the locations of these tests, now and in the past? No history of AFFF leaks, soap used to simulate foam for testing nozzles.

12. How many FTAs are/were on this facility and where are they? Locate on a map. How many FTAs are active and inactive? For inactive FTAs, when was the last time that fire training using AFFF was conducted at them?
They conduct live fire training adjacent to their building at the airport,
13. What types of fuels/flammables were used at the FTAs? Use prepare gas and water only for training. Too expensive to use A FFE for training.
Use propane gas and water only for training. Too expensive to use AFFF for training.
14. What was the frequency of AFFF use at each location? When a release of AFFF occurs during a fire training exercise, now and in the past, how is/was the AFFF cleaned and disposed of? Were retention ponds built to store discharged AFFF? Was the AFFF trickled to the sanitary sewer or left in the pond to infiltrate?
Stored only in buckets
15. Are there mutual aid/use agreements between county, city, local fire department? Please list, even if informal. If formalized, may we have a copy of the agreement? Can you recall specific times when city, county, state personnel came on-post for training? If so, please state which state/county agency, military entity? Do you have any records, including photographs to share with us? Informal agreement. They provide backup support for the Airport FD as needed.
16.Did individual units come on-post with their own safety personnel, did they also bring their own AFFF?
Was training with AFFF part of these exercises? How were emergencies handled under these circumstances?
No, they are the only ones that use their FTA

17. Did military routinely or occasionally fire train off-post? List units that you can recall used/trained at various areas. N/A 18. Are there specific emergency response incident reports (i.e., aircraft or vehicle crash sites and fires)? If so, may we please copy these reports? Who (entity) was the responder? No 19. Do you have records of fuel spill logs? Was it common practice to wash away fuel spills with AFFF? Is/was AFFF used as a precaution in response to fuel releases or emergency runway landings to prevent fires? No spills/leaks/discharges 20. Was AFFF used for forest fires or fire management on-post/off-post? If so, please describe what happened and who was involved? No 21. Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds)? No	
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AFFF? Is/was AFFF used as a precaution in response to fuel releases or emergency runway landings to prevent fires? No spills/leaks/discharges 20. Was AFFF used for forest fires or fire management on-post/off-post? If so, please describe what happened and who was involved? No 21. Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds)?	If so, may we please copy these reports? Who (entity) was the responder? No
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buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds)?	what happened and who was involved? No
	buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds)?

22. Are you aware of any other creative uses of AFFF? If so, how was AFFF used? What entities were involved? No
Handing of the AFFE displayed (and for twining town displayed as a local Fire Station)? If and in large
How is off-spec AFFF disposed (used for training, turned in, or given to a local Fire Station)? If applicable, do you know the name of the vendor that removes off-spec AFFF? Do you have copies of the manifest or B/L? Excess AFFF donated to local volunteer FDs
24. Do you recommend anyone else we can interview? If so, do you have contact information for them? No

Appendix B.2 Visual Site Inspection Checklists

Visual Site Inspection Checklist

Names(s) of people perf	orming VSI: McConnell Shager Dans
	Recorded by: Show
AR	NG Contact: MAT Jordan
Da	te and Time: 5/23/2018
Method of visit (walking, drivin	g, adjacent): Welk
Source/Release Information	
Site Name / Area Name / Unique ID:	A15F 23
Site / Area Acreage:	
Historic Site Use (Brief Description):	
Current Site Use (Brief Description):	AASF
Physical barriers or access restrictions:	gverded gok
Was PFAS used (or spilled) at the site/area?	Y/N
	v PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):
	hangar fire suppression system testing uppression system repair
Pre 2003 to 2016, A	FFF fire extinguisher testing/training
2. Has usage been documented? 2a. If yes, keep a record	(place electronic files on a disk):
Training	records hept 2 years.
5/opped	Using AFFF Zyeas ego NOW NOVEC 123
3. What types of businesses are located near th	
3a. Indicate what busine	sses are located near the site
4. Is this site located at an airport/flightline? 4a. If yes, provide a desc	cription of the airport/flightline tenants:
	side of airport, general aviation on west.

Visual Survey Inspection Log

Other Significant Si	te Features:
. Does the facility ha	ave a fire suppression system?
	1a. If yes, indicate which type of AFFI has been used:
	Buckeye Foam Concentrate for hangar system,
	Ansul AFFF for mobile carts
	1b. If yes, describe maintenance schedule/leaks:
	Annual hangar system testing conducted
	2003-2015, Ansul AFFF mobile carts taken
	out of service in 2016.
	1c. If yes, how often is the AFFF replaced:
	AST1 presumed full is original fill;
	AST2 refilled after torn bladder repair - 2006
	1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?
	Floor drains lead to OWS and municipal wastewater treatment
	plan, as built drawings not available
Fransport / Pathy	vay Information
<u> </u>	
. Does site/area drain	nage flow off installation?
	la. If so, note observation and location:
	to ponded area east of the facility boundary
Is there channelized	d flow within the site/area?
. 13 there chamilenzed	2a. If so, please note observation and location:
	100
	drainage swale east of flight line, leads to open ditch conveying drainage to ponded area east of the facility
Are monitoring or o	drinking water wells located near the site?
	3a. If so, please note the location:
	Interviews did not identify wells, EDR report notes wells in the vicinity.
Are surface water in	ntakes located near the site? Y/N
	4a. If so, please note the location:
Can wind dispersio	n information be obtained? Y/N
	5a. If so, please note and observe the location.
Does an adjacent no	on-ARNG PFAS source exist? Y/N
	6a. If so, please note the source and location.
	interviews with the Airport Fire Department identified FAA-required fire response readiness demonstration along runway

Visual Survey Inspection Log

Significant Topographical	eatures:
1. Has the infrastructure cha	ged at the site/area? Y(N)
<u> 1a. If</u>	o, please describe change (ex. Structures no longer exist):
	original hangar destroyed by tornado and replaced in 2003 with current hangar in
	same location. No fire suppression system in original hangar; only dry chemical extinguishers installed.
2. Is the site/area vegetated?	
	ot vegetated, briefly describe the site/area composition:
-	
	rassy areas surround the flight line, hangar and other facility features.

3. Does the site or area exhibit	t evidence of erosion? Y/N
3a. If	es, describe the location and extent of the erosion:
	al photos of ponded area east of the facility show evidence
of h	gh sediment content
4 Does the site/area exhibit	ny areas of ponding or standing water?
	es, describe the location and extent of the ponding:
	iding reportedly occurs on east and west sides of the flight line during heavy
	events, additionally ponded area exists east of the facility's eastern boundary
Receptor Information	
1. Is access to the site restric	$\frac{1}{\sqrt{Y}}$
	o, please note to what extent:
	irded gate entrance
	3
0.377	Site Workers / Construction Workers / Trespassers / Residential / Recreational
2. Who can access the site?	Users / Ecological
2a. Ci	ele all that apply, note any not covered above:
3. Are residential areas locat	inear the site? Y/N
3a. If	o, please note the location/distance:
	pariety of regidential commercial/industrial and agricultural pareals gurround the parthern an
	ariety of residential, commercial/industrial and agricultural parcels surround the northern an stern sides of the airport property; areas east and south are predominately agricultural.
·	
4. Are any schools/day care	
<u>4a. If</u>	o, please note the location/distance/type:
5. Are any wetlands located	ear the site?
	o, please note the location/distance/type:
	nearest wetlands identified by the US Fish and Wildlife Service (www.fws.gov/
	ands/Data/Mapper.html) is a 2.59 acre freshwater pond approximately 0.5 mile
-SOU	n of the facility

Visual Survey Inspection Log

Additional Notes			
Photographic Log			
Photo ID/Name	Date & Location	Photograph Description	10 Main (* 200) = 17 d
see Appendix C.	-		Management of the Park (Constant of the Park)
		-	

Appendix B.3 Conceptual Site Model Information

Preliminary Assessment – Conceptual Site Model Information

Site Name: AASF#3
Why has this location been identified as a site?
flowed into honger floor drain when there some system serviced ~300 gal flowed into honger floor drain when bank empted for bladder replacem. flowed into 0005 -> wwith. Ows cleaned 1-2x since. Desposition unknown
fluxed int honger floor drain when bank english for bladder replacem.
flowed it DUS -> wwith OUS cleaned 1-2x since disposition withour
Are there any other activities nearby that could also impact this location?
$\mathcal{N}_{\mathcal{O}}$
Training Events
Have any training events with AFFF occurred at this site?
If so, how often? Annuel fire exting and suffression sys check
How much material was used? Is it documented?
During annual test extended 9-10 menetes sate in suppress. Sys flass then Aff engages and sample collected. Estimates 300-350 gols bold a
then AFF engages and sample collected. Estimates 300-350 gols bold =
Identify Potential Pathways: Do we have enough information to fully understand over land surface water flow, groundwater flow, and geological formations on and around the facility? Any direct
pathways to larger water bodies?
Surface Water:
Surface water flow direction? $\mathcal{E} \mathcal{S} \mathcal{E}$
Average rainfall?
Any flooding during rainy season?
Direct or indirect pathway to ditches?
Direct or indirect pathway to larger bodies of water? And be last, with the less
Does surface water pond any place on site? adjacent in grassy area all ponde
Any impoundment areas or retention ponds?
Any NPDES location points near the site?
How does surface water drain on and around the flight line? overland to with with
som ppt drawing to old ows (by General
Senties 6/49) which discharged to sometay sever

Preliminary Assessment – Conceptual Site Model Information

Groundwater:
Groundwater flow direction? Cinknow
Depth to groundwater?
Uses (agricultural, drinking water, irrigation)?
Any groundwater treatment systems?
Any groundwater monitoring well locations near the site?
Is groundwater used for drinking water?
Are there drinking water supply wells on installation?
Do they serve off-post populations?
Are there off-post drinking water wells downgradient unknown
Waste Water Treatment Plant: Has the installation ever had a WWTP, past or present?
If so, do we understand the process and which water is/was treated at the plant?
Do we understand the fate of sludge waste?
Is surface water from potential contaminated sites treated?
Equipment Rinse Water 1. Is firefighting equipment washed? Where does the rinse water go?
2. Are nozzles tested? How often are nozzles tested? Where are nozzles tested? Are nozzles cleaned after use? Where does the rinse water flow after cleaning nozzles?
3. Other?

Preliminary Assessment - Conceptual Site Model Information

Identify Potential Receptors:
Site Worker
Construction Worker
Recreational User
Residential
Child
Ecological
Note what is located near by the site (e.g. daycare, schools, hospitals, churches, agricultural, livestock)?
airfol and Sculley golf course
Documentation
Ask for Engineering drawings (if applicable). None and.
Has there been a reconstruction or changes to the drainage system? When did that occur?
pending decomagestion when funding
or system design flaved

Appendix C Photographic Log

Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 1

Description:

AASF#3 hangar interior, placards on 1 of 2 AFFF storage tanks (300 gallon capacity) for the hangar fire suppression system, AFFF tanks are currently bypassed such that water only would be discharged from overhead nozzles if activated during emergency.



Photograph No. 2

Description:

AASF#3 hangar interior, inactive AFFF system tanks (2) in background



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 3

Description:

View west outside southeast corner of AASF#3 hangar, manhole for wastewater line visible in grass, which runs generally left to right in photo, (east to west) parallel with fencing visible in background



Photograph No. 4

Description:

View west outside southeast corner of AASF#3 hangar, wastewater lift station in foreground, wastewater line runs along fence line to west to the far side of airport



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 5

Description:

New NOVEC 1230 cart



Photograph No. 6

Description:

Two out of service AFFF carts stored in the wash rack building



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 7

Description

Inside active wash rack building, washwater flowing into floor drain piped to OWS and then discharged to airport wastewater system.



Photograph No. 8

Description:

View southeast, AASF#3 hangar on left, wash rack building on right.



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 9

Description:

View inside storage building with concrete floor, 11 containers of Ansul brand AFFF and other supplies are stored in the building



Photograph No. 1

Description:

View south of storage building surface drainage depression visible in grass. AASF# 3 hangar and wash rack building in background. Outside view to right is the flight line and former wash rack to left.



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 2

Description:

View southeast from inside former wash rack area. AASF#3 hangar building in background on far right. Drainage from flight line conveyed, via shallow ditch oriented along fencing from west to east (right to left in image).

Reported decommissioned oil water separator located in grass beyond former wash rack area, now filled with gravel



Photograph No. 12

Description:

View east from former wash rack area. Area of ponding which receives runoff from the northern portion of the facility is located in the far background, beyond chain link fencing and entrance drive



Army National Guard, Preliminary Assessment for PFAS

Army Aviation Support Facility#3

Jackson, Tennessee

Photograph No. 13

Description:

View northwest, surface drainage culvert, conveys surface flow north then east to ponded area outside facility

