# FINAL Preliminary Assessment Report Jefferson City AASF Jefferson City, Missouri

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

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#### **Acronyms and Abbreviations**

°F degrees Fahrenheit

AECOM Technical Services, Inc.
AFFF aqueous film forming foam

AFFF aqueous film forming for AOI area of interest

ARNG Army National Guard bgs below ground surface

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CSM conceptual site model

FTA fire training area

GSE ground service equipment
MOARNG Missouri Army National Guard

PA Preliminary Assessment

PFAS per- and poly-fluoroalkyl substances

PFOA perfluorooctanoic acid

PFOS perfluorooctanesulfonic acid

SI Site inspection 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 Army Corps of Engineers Baltimore District on behalf of the Army National Guard (ARNG) Installations & Environment Division, Cleanup Branch contracted AECOM Technical Services, Inc. (AECOM) to perform *Preliminary Assessments (PAs) and Site Inspections 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 released during firefighting activities or training, although other PFAS sources are possible.

AECOM completed a PA for PFAS at the Jefferson City Army Aviation Support Facility (AASF) in Jefferson City, Missouri, to assess potential PFAS release areas and exposure pathways to receptors. The AASF (also referred to as the "facility") is constructed on a parcel of land owned by the City of Jefferson and leased to the State of Missouri Office of the Adjutant General for the construction of the Missouri Army National Guard (MOARNG) AASF. The term of the lease began in 1975 for an indefinite term.

The performance of this PA included the following tasks:

- Reviewed data resources to obtain information relevant to suspected PFAS releases
- Conducted a site visit on 10 July 2019
- Interviewed current MOARNG personnel, MOARNG environmental managers, and operations staff
- Completed visual site inspections at known or suspected PFAS release locations and documented with photographs
- Developed a conceptual site model (CSM) to outline the potential release and pathway of PFAS for the Areas of Interest (AOIs) and the facility

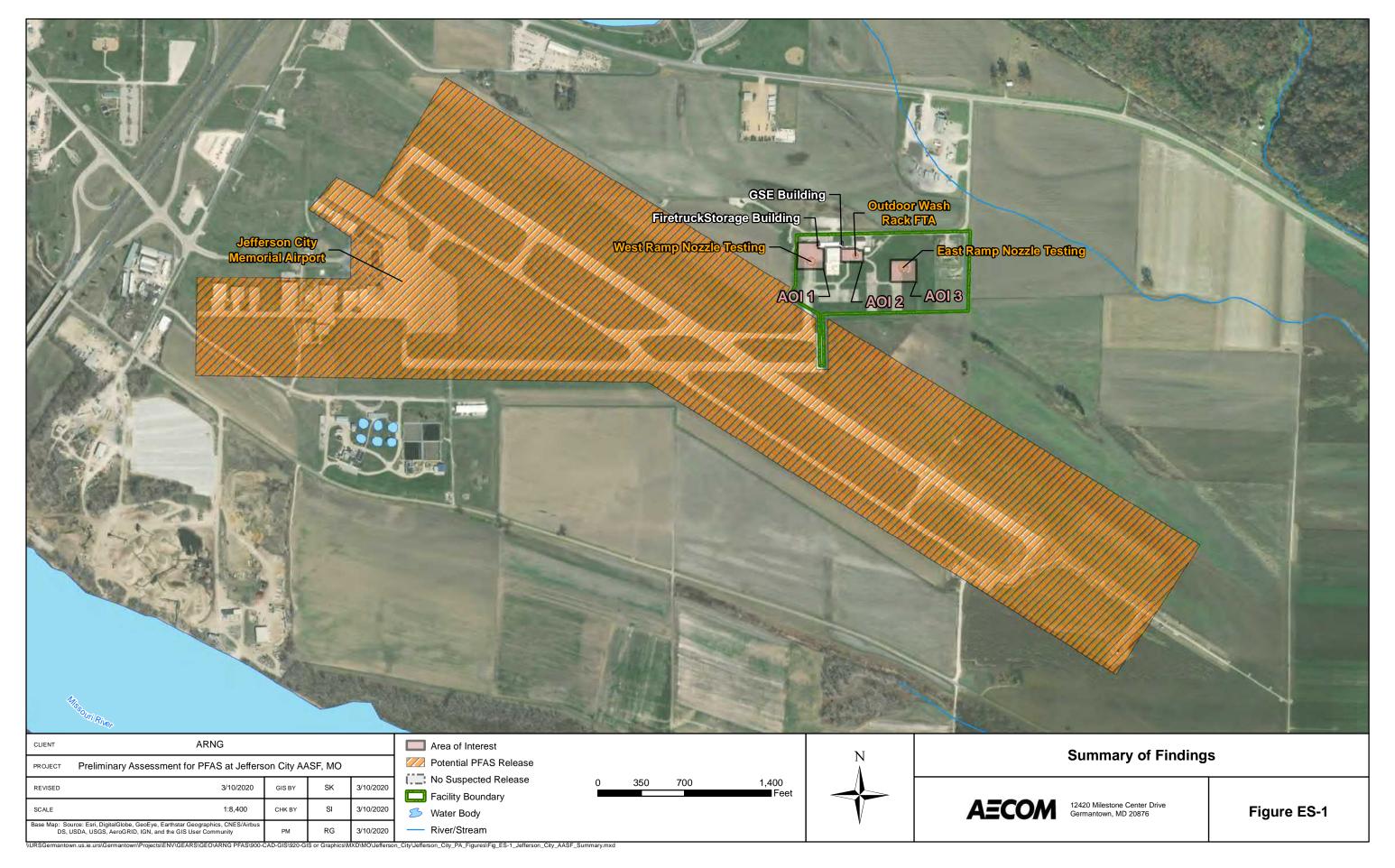
Three AOIs related to potential PFAS releases were identified at the AASF during the PA. The AOIs are shown on **Figure ES-1** and described in **Table ES-1**.

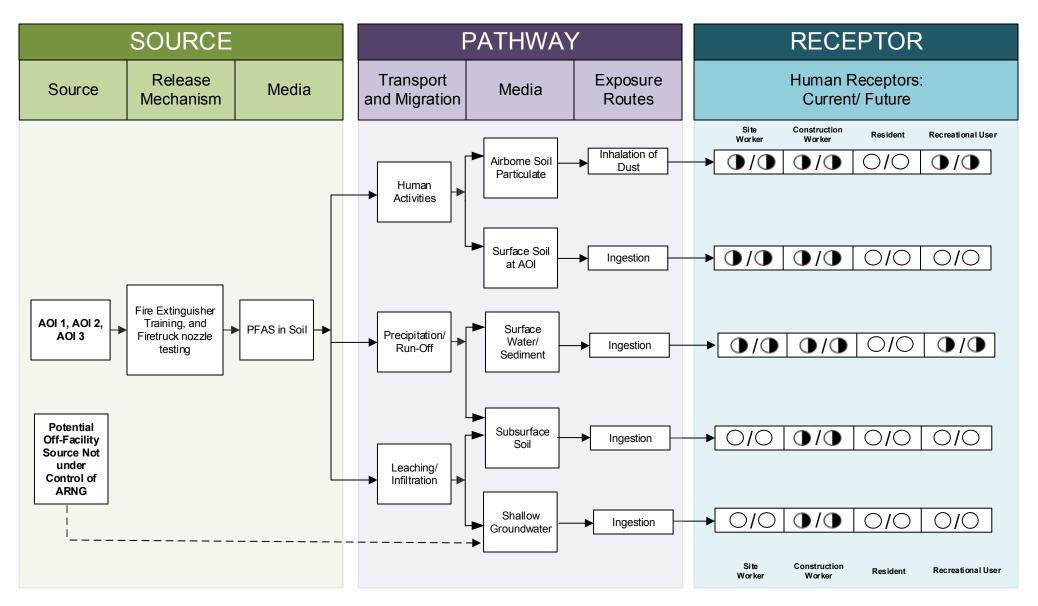
Table ES-1: AOIs at Jefferson City AASF

Area of Interest	Name	Used by	Potential Release Dates
AOI 1 West Ramp Nozzle Testing  Outdoor Wash Rack Fire Training Area		MOARNG	Annually from 1985-2002
		MOARNG	Annually from 1999-2016
AOI 3	East Ramp Nozzle Testing	MOARNG	Annually from 1985-2002

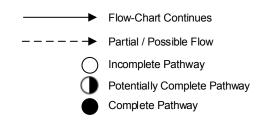
Based on potential PFAS release at this AOI, there is potential for exposure to PFAS contamination in media at or near the facility. The preliminary CSM for the AASF is shown on **Figure ES-2**, which presents the potential receptors and media impacted. Based on the United States Environmental Protection Agency (USEPA) Unregulated Contaminant Monitoring Rule 3 data, it was indicated that no PFAS were detected in a public water system above the USEPA Lifetime Health Advisory level within 20 miles of the facility.

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#### **LEGEND**



Flow-Chart Stops

#### Notes:

- 1. The resident and recreational user receptors refer to an off-facility resident and recreational users.
- 2. Dermal contact exposure pathway is incomplete for PFAS.

## Figure ES-2 Preliminary Conceptual Site Model Jefferson City AASF

#### 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, 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. 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. PFAS formulations contain highly diverse mixtures of compounds. Thus, the fate of these PFAS compounds in the environment will vary. The regulatory framework at both federal and state levels continues to evolve. The US 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. The State of Missouri does not currently have drinking water or soil standards for PFAS.

This report presents findings of a PA for PFAS at the Jefferson City Army Aviation Support Facility (AASF) in Jefferson City, Missouri 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 known fire training areas (FTAs) as well as additional locations where PFAS may have been released into the environment at the AASF. 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 site visit on 10 July 2019
- Interviewed current Missouri Army National Guard (MOARNG) personnel, MOARNG environmental managers, and operations staff
- Completed visual site inspections at known or suspected PFAS release locations and documented with photographs
- Developed a conceptual site model (CSM) to outline the potential release and pathway of PFAS for the Areas of Interest (AOIs) and the facility

#### 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 FTAs at the facility identified during the site
  visit.
- **Section 3 Non-Fire Training Areas:** describes other locations of potential PFAS releases at the facility identified during the site visit.
- **Section 4 Emergency Response Areas:** describes areas of potential PFAS release at the facility, specifically in response to emergency situations.
- **Section 5 Adjacent Sources:** describes sources of potential 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 each 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

Jefferson City AASF is in Callaway County in central Missouri (**Figure 1-1**). The AASF is approximately 1.5 miles from the city center of Jefferson City, and is approximately 100 miles west of St. Louis, Missouri. The AASF is adjacent to the Jefferson City Memorial Airport and is accessible via the US-54 highway from the north. The facility is currently operated as a military aircraft maintenance facility for the MOARNG. The major facility features consist of an aircraft hangar, two petroleum oil and lubricant storage buildings, a drive-on secondary containment structure, a wash rack, taxiways, and aircraft parking pads.

The AASF is constructed on a parcel of land, approximately 17 acres, that has been operated by the MOARNG since 1975 (**Appendix A**). The land is owned by the City of Jefferson, and leased to the State of Missouri Office of the Adjutant General for the construction of the MOARNG AASF. The term of the lease began in 1975 for an indefinite term. The AASF includes hangars, storage buildings, and administrative offices.

#### 1.5 Facility Environmental Setting

Cole County is in the geographic center of the state of Missouri where Jefferson City resides. Jefferson City exists on the far northern edge of the Ozark Plateau where it runs on the southern side of the Missouri River in a geographic region known as the Mid-Missouri. The Ozark Plateau region is composed of Paleozoic sedimentary rocks. On the northern region of the plateau they are formed by an asymmetrical low dome, while the eastern side is a steep

slope and the western side has a shallow grade. The rocks in this region are deformed and have been eroded in severe ridges and valleys. It borders the Ouachita province but is separated on one side by the Boston Mountains, a plateau that had separated from the southern portion of the Ozark Plateau. The other side is separated by the Arkansas Valley, a long ranging lowland in the northern portion of the Ouachita province (National Park Service, 2018).

#### 1.5.1 Geology

The Jefferson City AASF is underlain by Smithville Dolomite, Powell Dolomite, Cotter Dolomite, and Jefferson City Dolomite Formation, which consists of fine crystalline, silty, cherty dolomite, and oolitic chert with local sandstone beds. The formations range from 150 to 459 feet in thickness dated from the Early Ordovician period (Howe, 1961). More specifically, the geology in this region includes generally fine-grained, crystalline or argillaceous dolostone with beds of sandstone, sandy dolostone, shale, chert and oolite. Fossils dated back to Early Ordovician are present throughout the formations. These fossils include gastropods, cephalopods, trilobites and reef-building algae (Winslow, 1894).

The surface in the surrounding area includes steep ledges, steep bluffs, rolling hills to bottom lands and terraces along the streams. Jefferson City AASF is located on a flood plain next to the Missouri River (Sweet and Wildermuth, 1920).

#### 1.5.2 Hydrogeology

The Jefferson City AASF is within the Northeast Missouri Groundwater Province. Between the north and south of this province lies a freshwater-salinewater transition zone. Throughout this province is the Mississippian, Ordovician, and Cambrian aged strata overlie by glacial drift. The south portion of the province supplies potable water. In the north portion of the province there is less potable water due to being highly mineralized from deeper bedrock, or the quality of water is marginal to poor due to shallow and low permeability strata in various areas or shallow glacial drift that doesn't supply enough water. Good-quality water is near the flood plains where sand and gravel deposits are found. The Northeast Missouri Groundwater Province accounts for only 13% of the state's usable water (Missouri Department of Natural Resources, 2019).

No potable water wells are located within the boundary of the AASF; however, one irrigation well, one domestic well and several monitoring wells exists upgradient of the facility (**Figure 1-2**). Drinking water for the AASF is supplied by Jefferson City, which obtains its public water supply from the deep groundwater wells (Public Water Supply District No. 1 of Cole County, 2018). The municipal water supply well locations are unknown.

#### 1.5.3 Hydrology

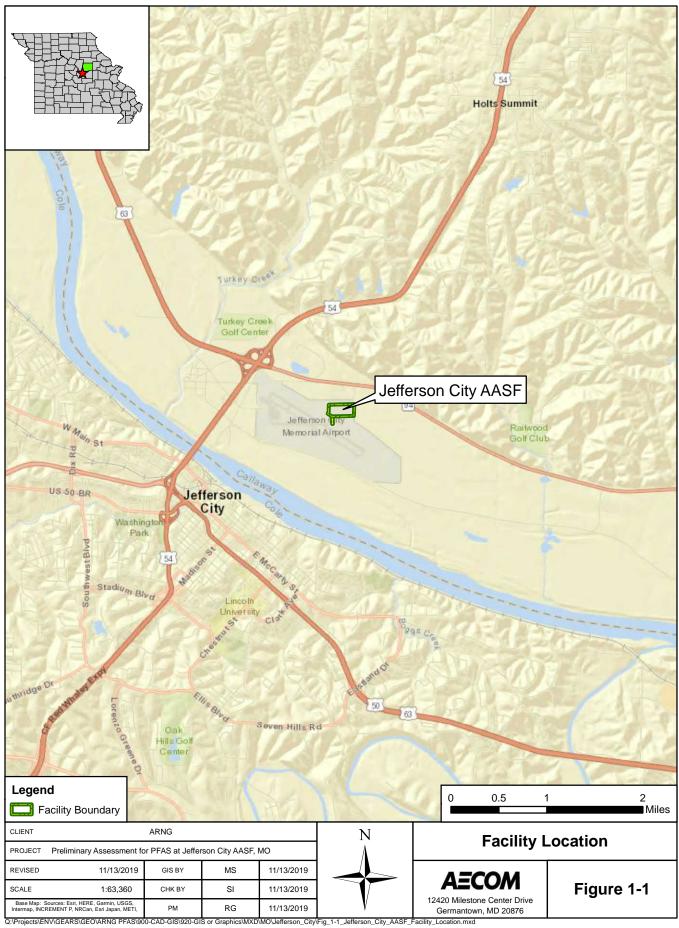
Jefferson City is split by the Missouri River separating Cole County to the south, and Callaway County to the north (**Figure 1-3**). In Cole County, the main bodies of water include Moreau River that flows northeast into the Missouri River and Osage River, a tributary of the Missouri River, that runs north outlining the east border of Cole County. In Callaway County, the main bodies of water include Cedar Creek, Rivaux River, Middle River, and the Loutre River, all tributaries of the Missouri River. The AASF, is less than one mile north of the Missouri River, roughly one mile east of Cedar Creek, and about 6 miles west of the Rivaux Creek.

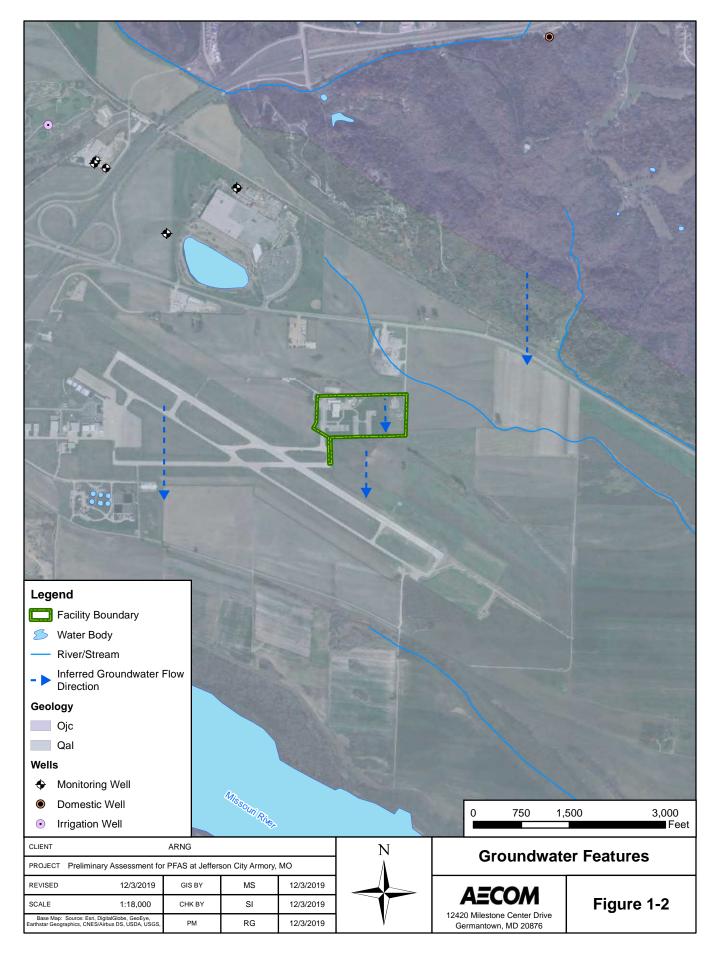
#### 1.5.4 Climate

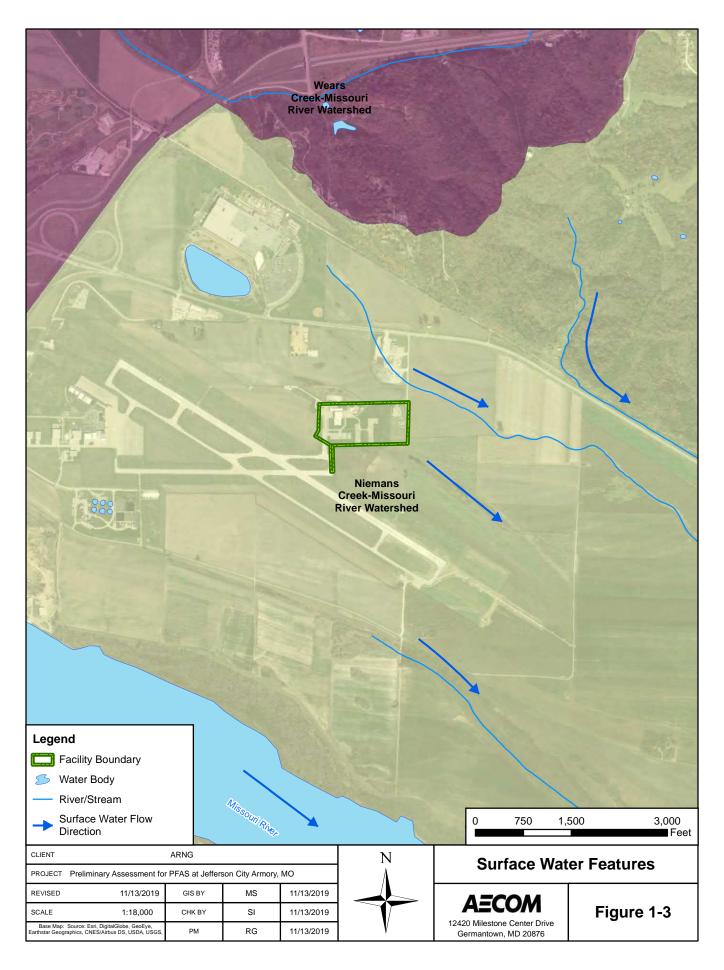
The climate for Jefferson City is characterized as hot and muggy during the summer months followed by short and freezing winters. Precipitation in the form of rainfall was recorded at an annual average of 36.3 inches per year, with June being the rainiest month with over 4.5 inches. Summer temperatures reach an average temperature of 74.9 degrees Fahrenheit (°F) having an average maximum of 87.5°F, with July being the hottest month. Winter months reach an average temperature of 30.4°F. Winter minimum temperatures reach an average low of 18.4°F with January being the coldest (World Climate, 2019).

#### 1.5.5 Current and Future Land Use

The AASF is a controlled access facility with public roads and is adjacent to the Jefferson City Memorial Airport. The Jefferson City Memorial Airport is owned and operated by Jefferson City and provides commercial and general air service. Reasonably anticipated future land use is not expected to change from the current land use.







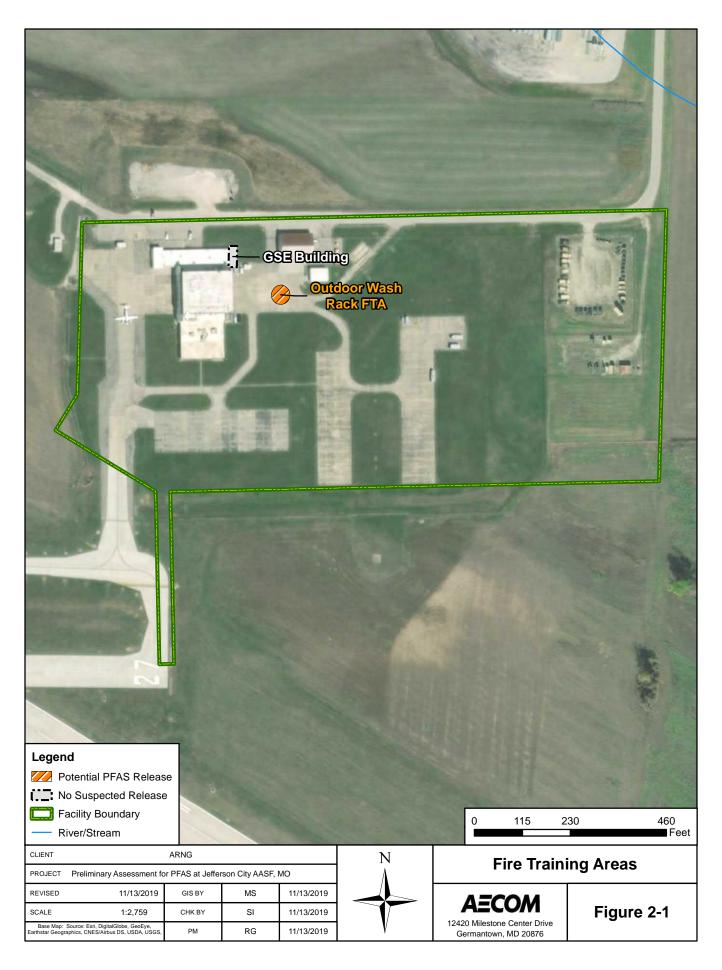
#### 2. Fire Training Areas

One FTA where PFAS was potentially released was identified during the PA. A description of the FTA is presented below and shown on **Figure 2-1**. Interview records appear in **Appendix B**. Photographs appear in **Appendix C**.

#### 2.1 Outdoor Wash Rack FTA

From 1999 to 2016, annual fire training with one TriMax30<sup>TM</sup> fire extinguisher occurred at the outdoor wash rack on the east side of the hangar. The geographical coordinates 38°35'36.00"N and 92°9'4.60"W. During the training event, one TriMax30<sup>TM</sup> would be emptied by MOARNG personnel putting out a small fire. The spent TriMax30<sup>TM</sup> unit would then be refilled with AFFF at the outdoor wash rack area. Since 2016, the MOARNG have used a TriMax30<sup>TM</sup> filled with a soap/water mixture to conduct fire training activities.

TriMax30<sup>TM</sup> fire extinguishers were introduced to the AASF in 1999. There were four TriMax30<sup>TM</sup> units until 2005, when four additional TriMax30<sup>TM</sup> units were added due to an increase in aircraft at the AASF. Currently, there are three TriMax30<sup>TM</sup> fire extinguishers filled with AFFF, and one TriMax30<sup>TM</sup> filled with a soap/water mixture. It is unknown when the additional four TriMax30<sup>TM</sup> units were removed or their disposition. In 2019, the AFFF from three TriMax30<sup>TM</sup> fire extinguishers were discharged to the ground at the wash rack and refilled with a climate controlled AFFF concentrate to avoid freezing. Every five years, all the TriMax30<sup>TM</sup> units undergo hydrostatic testing that is conducted by a contractor. When the TriMax30<sup>TM</sup> units needed to be refilled, it took place at the Ground Service Equipment (GSE) Building on the northwest side of the outdoor wash rack. There were no reported spills or leaking in the GSE Building. The GSE Building and the wash rack each have one drain that leads to the oil/water separator, then to the city sanitary waste water treatment plant (WWTP).



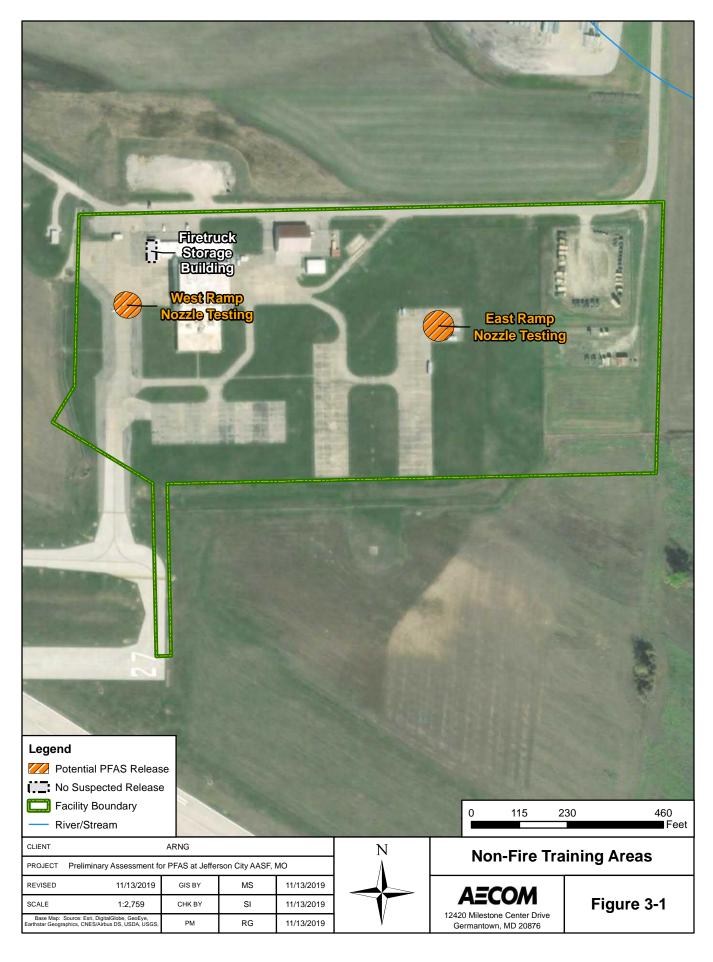
#### 3. Non-Fire Training Areas

One non-FTA where PFAS was potentially released was also identified during the PA. A description of the non-FTA is presented below, and the non-FTA is shown on **Figure 3-1**. Interview records appear in **Appendix B**. Photographs appear in **Appendix C**.

#### 3.1 Firetruck Nozzle Testing Areas

A firetruck was located on the AASF from 1985 to 2002. The firetruck had the capacity to hold three, 50-gallon AFFF tanks. It was never used to extinguish any fires; however, nozzle testing was conducted annually in one of two areas; the west ramp area and the far east ramp area. The geographical coordinates are 38°35'35.60"N and 92° 9'9.18"W, and 38°35'35.00"N and 92°8'59.80"W, respectively. The nozzle testing areas on the west and east ramp areas do not have drains, and the AFFF was allowed to disperse off the concrete onto the grassy areas adjacent to the ramps. The amount and concentration of AFFF dispensed during nozzle testing is unknown. After testing the nozzle, the truck was washed at the outdoor wash rack (**Section 2.1**) on the east side of the hangar. The outdoor wash rack has one drain that leads to an oil/water separator and ultimately discharges to the sanitary WWTP.

The firetruck was stored in a building on the west side of the facility that is equipped with floor drains that lead to an oil/water separator then to the sanitary WWTP. The geographical coordinates of the firetruck storage building are 38°35'36.80"N and 92° 9'8.29"W. There were no reports of any leaking or spills from the vehicle. Approximately 200-220 gallons of bulk AFFF was held in reserve and stored in the upper level mezzanine of same building. The disposition of the firetruck and bulk AFFF is unknown.



#### 4. Emergency Response Areas

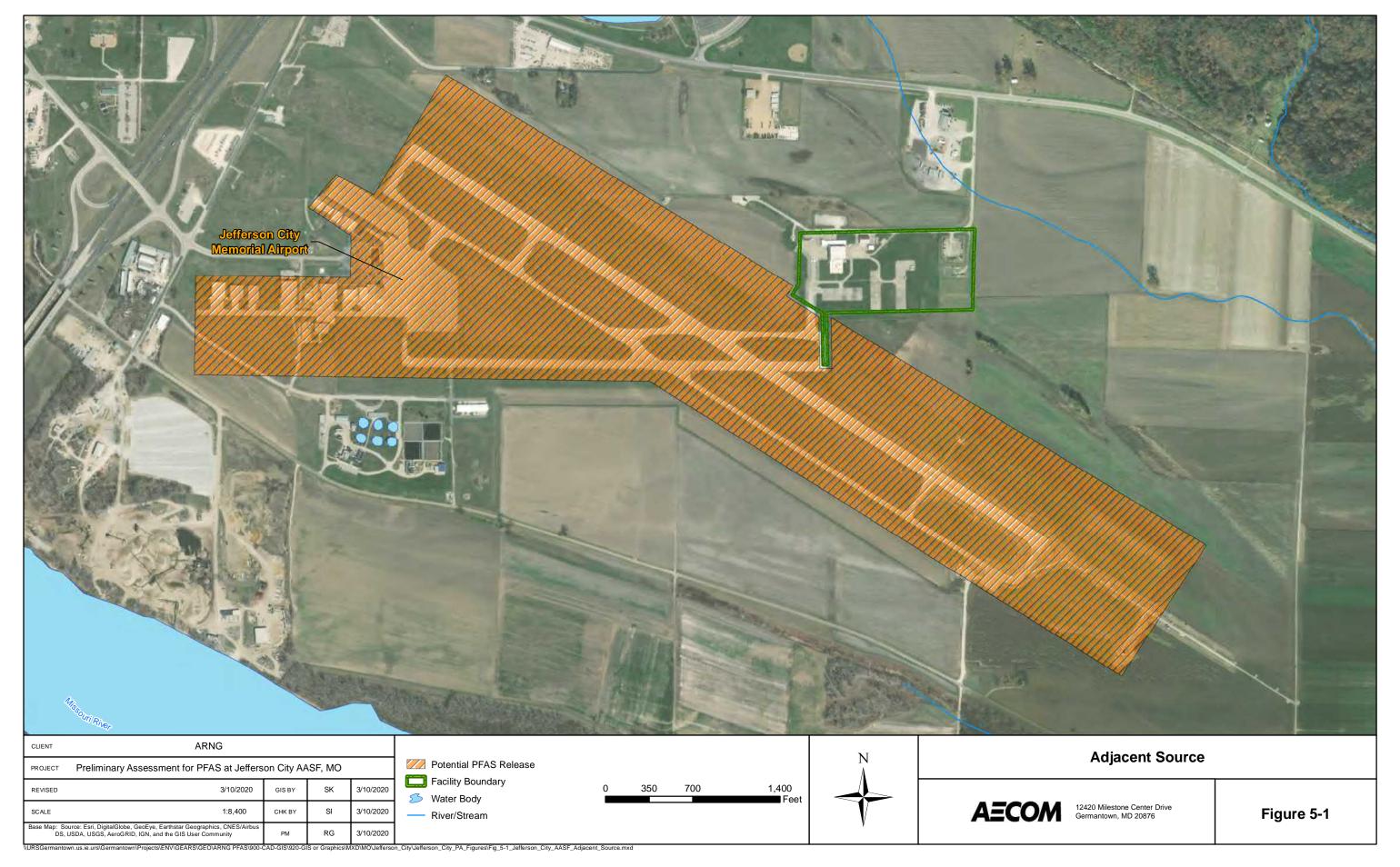
No emergency response areas or incidents were identified within the AASF during the PA through interviews (**Appendix B**), historical document review, or the Environmental Data Resource Report. The Jefferson City Fire Department responds to all emergency incidents at the AASF.

#### 5. Adjacent Sources

One potential off-facility source of PFAS adjacent to the AASF, not under the control of the ARNG, was identified during the PA. Based on interviews with MOARNG personnel (**Appendix B**) and historical document review, the identified adjacent area with potential AFFF releases are outside the AASF boundaries. The description of the adjacent source is presented below and are shown on **Figure 5-1**.

#### 5.1 Jefferson City Memorial Airport

The Jefferson City Memorial Airport geographic coordinates are 38°35'34.74"N; 92°9'55.95"W. The Jefferson City Memorial Airport was constructed in 1947 and is owned and operated by Jefferson City. The AASF is east and adjacent to the Jefferson City Memorial Airport. There is not a fire department at the airport. There are several public, corporate and private aircraft hangars located at the Jefferson City Memorial Airport. It is unknown if the aircraft hangars have fire suppression systems or if AFFF is present in the hangars.



#### 6. Preliminary Conceptual Site Model

Based on the PA findings, three AOIs were identified at the AASF: AOI 1 West Ramp Nozzle Testing, AOI 2 Outdoor Wash Rack, and AOI 3 East Ramp Nozzle Testing. The AOI locations are shown on **Figure 6-1**. The following sections describe the CSM components and the specific CSMs developed for each AOI. The CSM identifies the three components necessary for a potentially complete exposure pathway: (1) source, (2) pathway, (3) receptor. If any of these elements are missing, the pathway is considered incomplete.

#### 6.1 Pathways

In general, the potential PFAS exposure pathways are ingestion and inhalation. Human exposure via the dermal contact pathway may occur, and current risk practice suggests it is an insignificant pathway compared to ingestion; however, exposure data for dermal pathways is sparse and continues to be the subject of PFAS toxicological study (National Ground Water Association, 2018).

AFFF releases identified at the AASF occurred on both surface soil and paved surfaces. Releases to the paved surfaces could have migrated a short distance onto the surrounding surface soil. Ground-disturbing activities in these grassy areas as well as, beneath the paved surfaces may result in potential exposure to surface soils via ingestion and inhalation of dust particles. AFFF releases to the paved surfaces could have infiltrated the subsurface via cracks in the pavement or joints between areas that are paved with different materials. Ground-disturbing activities may result in potential exposure to subsurface soils and groundwater via ingestion.

PFAS are water soluble and can migrate readily from soil to groundwater via leaching; however, drinking water at the AASF is resourced from deep groundwater wells in Jefferson City. One domestic water and one irrigation well exists upgradient of the facility.

Based on the surface water flow direction, potential releases may have ultimately drained to the south on the facility, then off-facility towards the Missouri River. The ramp and surrounding grassy areas are susceptible to flooding from the Missouri River and during severe rain. As a result, it is possible PFAS migrated and may result in potential exposure via ingestion of surface water and sediment.

#### 6.2 Receptors

Receptors include site workers, construction workers, and off-facility recreational users. These receptors as they pertain to the facility are described below:

- Site workers typically work at or use the site and may come into contact with the surface soils, sediment, and surface water.
- Construction workers are considered workers who represent a utility worker or other worker who would be exposed to surface and/or subsurface conditions through ground-disturbing activities.
- Off-facility recreational users typically identify a person who has infrequent access to the site. Off-facility recreational users could be exposed to sediment and surface water during recreational use (i.e., fishing).

The preliminary CSM for the AASF indicates which specific receptors could potentially be exposed to PFAS. The preliminary CSM for all AOIs is shown on **Figure 6-2**.

### 6.3 AOI 1 West Ramp Nozzle Testing and AOI 3 East Ramp Nozzle Testing

A firetruck was located at the AASF from 1985 to 2002. The firetruck had the capacity to hold three, 50-gallon AFFF tanks. Nozzle testing was conducted annually in one of two areas, the west ramp area and the far east ramp area. Both the west and east ramp areas where the nozzle testing occurred, do not have drains, and the AFFF was allowed to disperse off the concrete onto the grassy areas. The amount and concentration of AFFF dispensed during nozzle testing is unknown.

PFAS are water soluble and can migrate readily from soil to surface water. Based on the inferred surface water flow direction, potential releases may have drained south and ultimately to the Missouri River. Potential PFAS exposure pathways resulting from releases at AOI 1 and AOI 3 are described in **Table 6-1**.

Table 6-1: Exposure Pathways for AOI 1 and AOI 3

Pathway	Receptor
Surface Soil	Considered a potentially complete pathway to site workers and construction workers via ingestion or inhalation of dust
Subsurface Soil	Considered a potentially complete pathway to construction workers via ingestion or inhalation of dust
Surface Water and Sediment	Considered a potentially complete pathway to site workers, construction workers, and off-facility recreational users via ingestion
Groundwater	Considered a potentially complete pathway to construction workers via ingestion

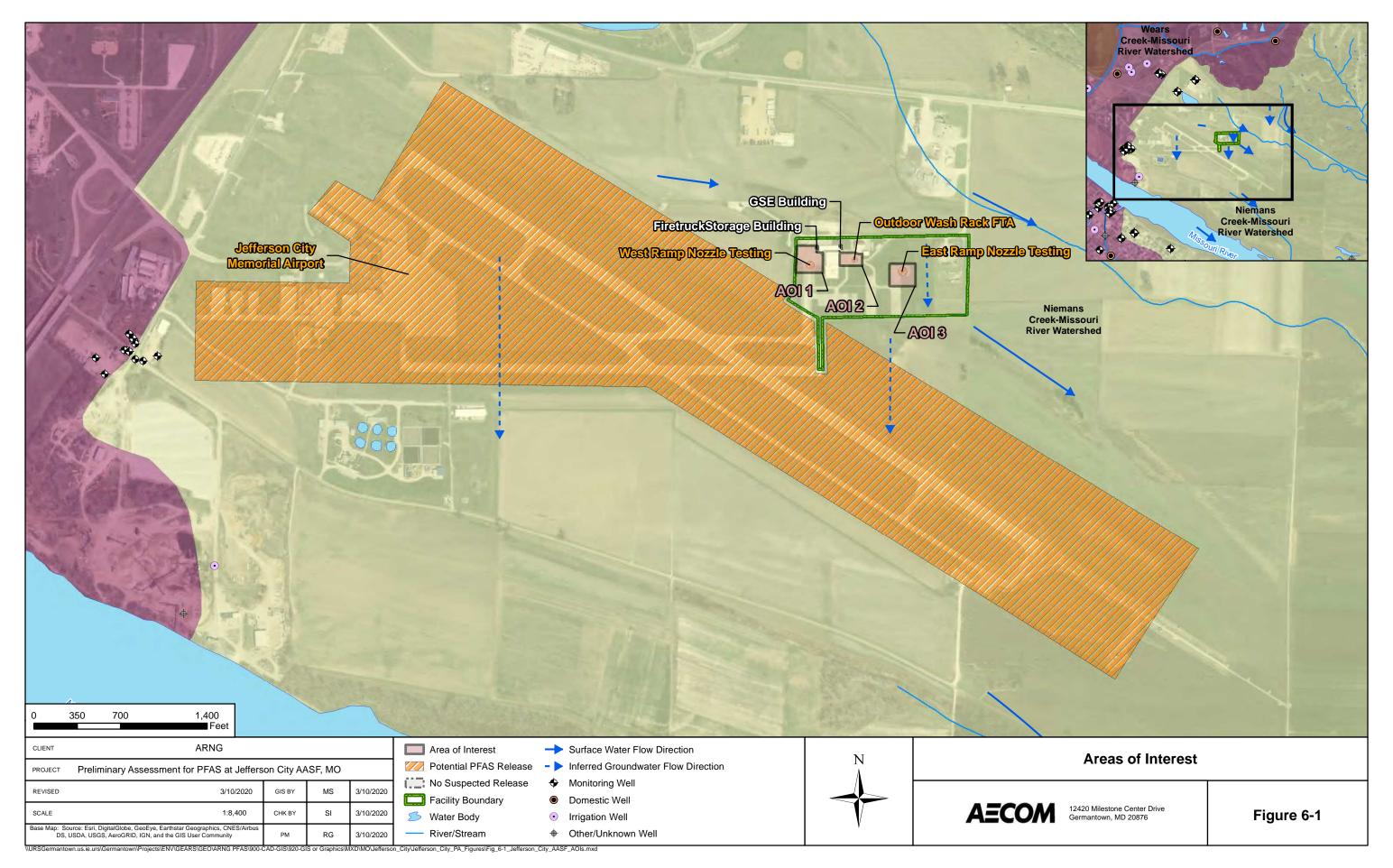
#### 6.4 AOI 2 Outdoor Wash Rack FTA

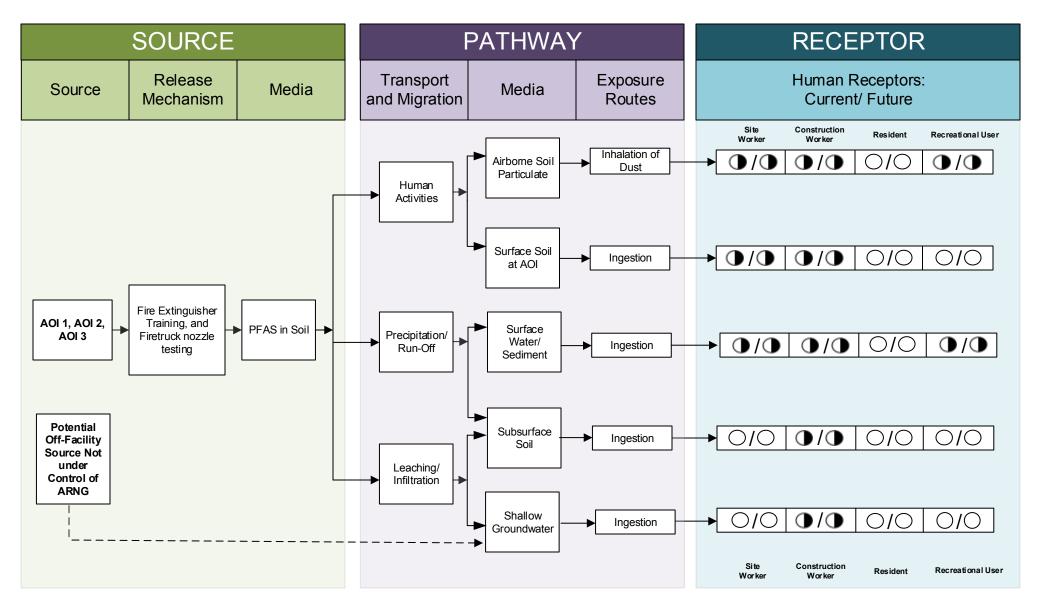
From 1999 to 2016, annual fire training with one TriMax $30^{TM}$  fire extinguisher occurred at the outdoor wash rack on the east side of the hangar.

PFAS are water soluble and can migrate readily from soil to surface water. Based on the inferred surface water flow direction, potential releases may have drained south and ultimately to the Missouri River. Potential PFAS exposure pathways resulting from releases at AOI 2 are described in **Table 6-2**.

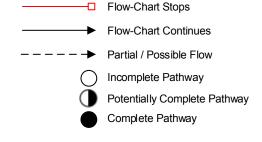
Table 6-2: Exposure Pathways for AOI 2

Pathway	Receptor		
Surface Soil	Considered a potentially complete pathway to site workers and construction workers via ingestion or inhalation of dust		
Subsurface Soil	Considered a potentially complete pathway to construction workers via ingestion or inhalation of dust		
Surface Water and Sediment	Considered a potentially complete pathway to site workers, construction workers, and off-facility recreational users via ingestion		
Groundwater	Considered a potentially complete pathway to construction workers via ingestion		





#### **LEGEND**



#### Notes:

- 1. The resident and recreational user receptors refer to an off-facility resident and recreational users.
- 2. Dermal contact exposure pathway is incomplete for PFAS.

#### Figure 6-2

Preliminary Conceptual Site Model
AOI 1 West Ramp Nozzle Testing, AOI 2 Outdoor Wash Rack FTA,
and AOI 3 East Ramp Nozzle Testing

#### 7. Conclusions

This report presents a summary of available information gathered during the PA on the use and storage of AFFF and other PFAS-related activities at the AASF. The PA findings are based on the information presented in **Appendix A** and **Appendix B**.

#### 7.1 Findings

Three AOIs related to potential PFAS release were identified (**Table 7-1**) at the AASF during the PA (**Figure 7-1**).

Table 7-1: AOIs at the AASF

Area of Interest	Name	Used by	Potential Release Dates
AOI 1	West Ramp Nozzle Testing	MOARNG	Annually from 1985-2002
AOI 2	Outdoor Wash Rack FTA	MOARNG	Annually from 1999-2016
AOI 3	East Ramp Nozzle Testing	MOARNG	Annually from 1985-2002

Based on potential PFAS release at these AOIs, there is potential for exposure to PFAS contamination in media at or near the facility. The preliminary CSM for the AASF is shown on **Figure 6-2**, which presents the potential receptors and media impacted.

The following areas discussed in **Section 2** through **Section 5** were determined to have no suspected PFAS releases (**Table 7-2**).

Table 7-2: No Suspected Release Areas

No Suspected Release Area	Used by	Rationale for No Suspected Release Determination
GSE Building	MOARNG	When the TriMax30 <sup>™</sup> units needed to be refilled, it took place at the GSE building on the northwest side of the wash rack. There were no reported spills or leaking in the GSE building. The GSE Building has one drain that leads to the oil/water separator, then to the sanitary WWTP.
Firetruck Storage Building	MOARNG	There was a firetruck stored in the building adjacent to the hangar from 1985 to 2002. There were no reports of any leaking or spills from the truck. The building drains lead to the oil/water separator, then to the sanitary WWTP.

#### 7.2 Uncertainties

A number of 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 vague or conflicted with other sources. 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, retired and current personnel were interviewed, multiple persons were interviewed for the same potential source area, and potential source areas were visually inspected. **Table 7-3** summarizes the uncertainties associated with the PA.

**Table 7-3: Uncertainties** 

Area of Interest	Source of Uncertainty
AOI 1 and AOI 3	No information was available on the amount and concentration of AFFF used during the nozzle testing.
AOI 2	The wash rack has a drain that ultimately leads to the city sanitary WWTP; however, it is unknown if there was runoff onto the grass area to the south.

#### 7.3 Potential Future Actions

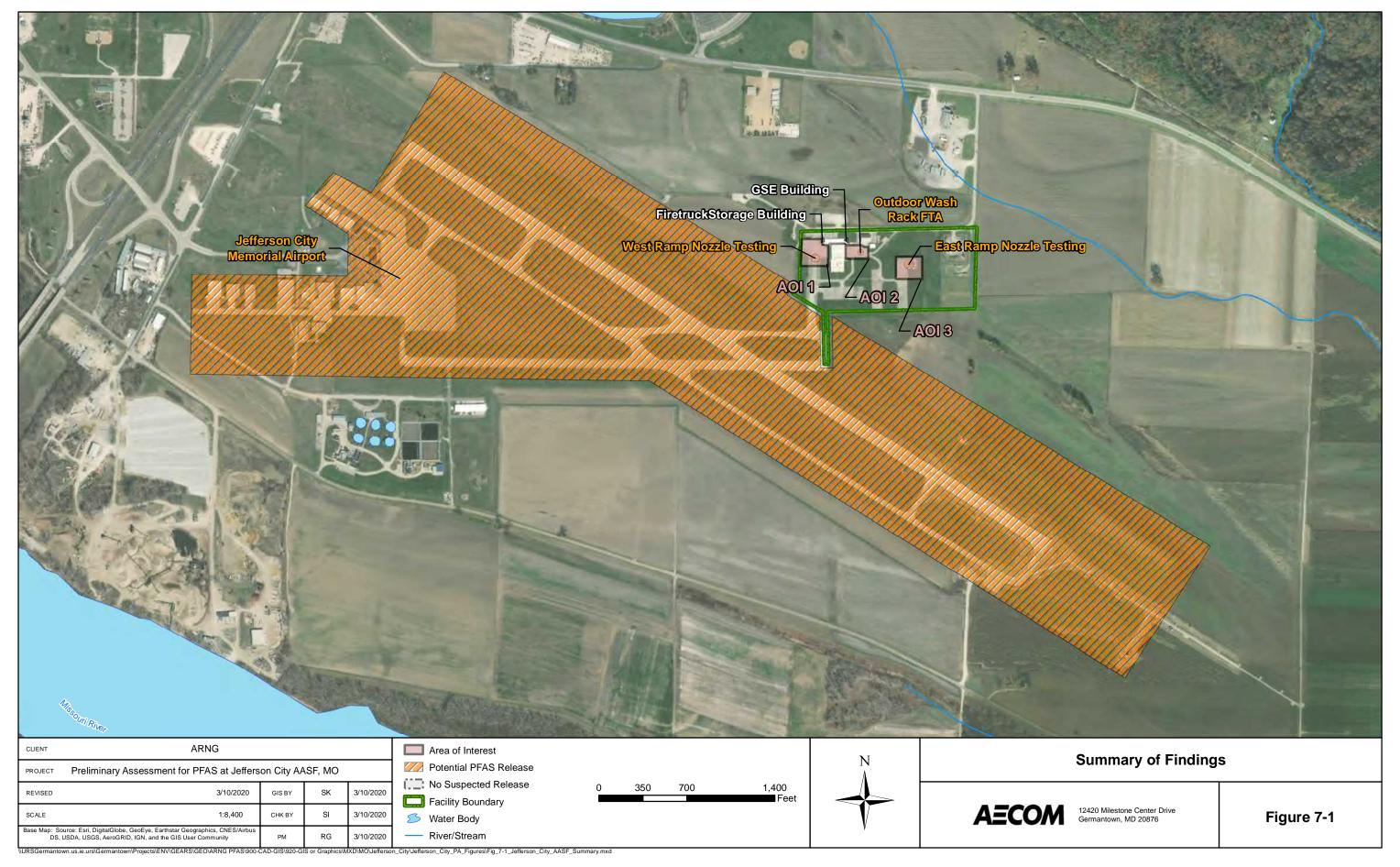
Interviews and records (covering 1985 to present) indicate that current or former ARNG activities may have resulted in potential PFAS releases at the three AOIs identified during the PA. Based on the CSM developed for the AOIs, there is potential for receptors to be exposed to PFAS contamination in soil, groundwater, surface water, and sediment at the AOIs. **Table 7-4** summarizes the rationale used to determine if the AOIs should be considered for further investigation under the CERCLA process and undergo a SI.

ARNG evaluates the need for an SI at the AASF based on the potential receptors, the potential migration of PFAS contamination off the facility, and the availability of resources.

**Table 7-4: PA Findings Summary** 

Area of Interest	AOI Location Rationale		Potential Future Action
AOI 1 West Ramp Nozzle Testing	38°35'35.60"N 92° 9'9.18"W	Annual nozzle testing on ramp area from 1985 to 2002. The AFFF was allowed to runoff the concrete and into the adjacent grassy areas.	Proceed to an SI, focus on soil, groundwater, surface water, and sediment
AOI 2 Outdoor 38°35'36.00"N TriMax Wash Rack FTA 92°9'4.60"W was er		Annual FTA where one TriMax30 <sup>™</sup> fire extinguisher was emptied on the wash rack area from 1999- to 2016.	Proceed to an SI, focus on soil, groundwater, surface water, and sediment

Area of Interest	AOI Location	Rationale	Potential Future Action
AOI 3 East Ramp Nozzle Testing	38°35'35.00"N 92°8'59.80"W	Annual nozzle testing on ramp area from 1985 to 2002. The AFFF was allowed to runoff the concrete and into the adjacent grass areas.	Proceed to an SI, focus on soil, groundwater, surface water, and sediment



#### 8. References

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Sweet, A.T, and Wildermuth, R. 1920. Soil Survey of Cole County, Missouri.

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Winslow, A. 1894. Missouri Geological Survey. Accessed October 2019.

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# Appendix A Data Resources

Data Resources will be provided separately on CD. Data Resources for Jefferson City AASF.

#### **Jefferson City AASF Leases, Licenses, and Permits**

1975 Jefferson City AASF Deed

#### **Jefferson City AASF Documentation**

- 2016 Jefferson City Surface Runoff Accumulation Analysis
- 2019 Storm Water Pollution Prevention Plan for Jefferson City Cooper Drive Armory

#### **EDR Report**

• 2019 Jefferson City AASF EDR Report

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KNOW ALL MEN BY THESE PRESENTS, That the City of Jefferson, of the County of Cole in the State of Missouri, a Municipal Corporation, organized and existing under the laws of the State of Missouri, Party of the First Part, in consideration of One Dollar (\$1.00) and other valuable considerations to be paid by the State of Missouri, Office of the Adjutant General, Jefferson City, Missouri 65101, Party of the Second Part, the receipt of which is hereby acknowledged, and by virtue and pursuant to an Ordinance of the City Council of said Party of the First Part, does, by these presents, Grant, Bargain, Sell, Convey and Confirm unto the said Party of the Second Part its successors and assigns, the following described lots, tracts or parcels of land, lying, being and situate in the County of Callaway and State of Missouri, to wit:

A tract of land being part of New Madrid Private Survey No. 2638, Callaway County, Missouri, more particularly described as follows:

From the Northeast corner of said New Madrid
Private Survey No. 2638; thence South 4 degrees
10 minutes East along the east line of said New
Madrid Private Survey No. 2638, 1229.7 feet to the
point of beginning of this description; thence
continuing South 4 degrees 10 minutes East, 550
feet; thence South 83 degrees 03 minutes West,
1178.3 feet; thence North 64 degrees 24 minutes
West, 254.9 feet; thence North 4 degrees 10 minutes
West, 412.6 feet; thence North 83 degrees 03 minutes
East, 1400.0 feet to the point of beginning. Said
tract contains 17.31 acres.

The above described tract is subject to a 50 foot wide roadway and utility easement to be used by the Party of the First Part, its successors and assigns and is more particularly described as follows:

The most Northerly 50 feet and the most Easterly 50 feet of the above described tract.

The Party of the First Part also grants to the Party of the Second Part an easement to be used for the purpose of aircraft parking and for the construction of an aircraft taxiway, and said easement being part of New Madrid Private

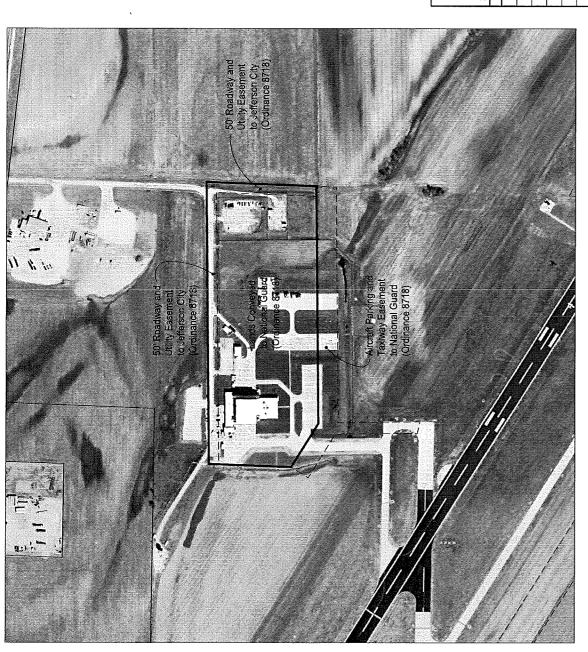
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Survey No. 2638, Callaway County, Missouri, is more particularly described as follows:

From the Northeast corner of said New Madrid Private Survey No. 2638; thence South 4 degrees 10 minutes East along the east line of said New Madrid Private Survey No. 2638, 1779.70 feet to the point of beginning of this description; thence continuing South 4 degrees 10 minutes East, 100 feet; thence South 83 degrees 03 minutes West, 1170.83 feet; thence South 6 degrees 57 minutes East, 412.50 feet to the Northeast corner of runway extension 8-26; thence Westerly along the North edge of runway extension 8-26, 40 feet; thence North 6 degrees 57 minutes West, 414.35 feet; thence North 64 degrees 24 minutes West, 280.65 feet; thence North 25 degrees 36 minutes East, 100 feet; thence South 64 degrees 24 minutes East, 254.9 feet; thence North 83 degrees 03 minutes East, 1178.73 feet to the point of beginning.

TO HAVE AND TO HOLD the premises aforesaid, with all and singular the rights, privileges, appurtenances and immunities thereto belonging, or in anywise appertaining unto the said Party of the Second Part, and unto its successors and assigns forever. The said Party of the First Part hereby covenanting that it is lawfully seized of an indefeasible estate in fee in the premises herein conveyed, that it has good right to convey the same; that the said premises are free and clear of any encumbrance done or suffered by it or those under whom it claims, and that it will Warrant and Defend the title of the said premises unto the said Party of the Second Part, and unto its successors and assigns forever, against the lawful claims and demands of all persons whomsoever, subject to the following conditions:

(1) The conveyance of this real property is subject to the condition that the Party of the Second Part expressly agrees for itself, its successors and assigns, that the real property herein conveyed is to be used for the construction thereon of a National Guard Aviation Support Facility and if said facility is not constructed upon the property herein conveyed within five (5)



# ELGIN SURÄFYING

REVISIONS

Worksheet showing City Ordinances

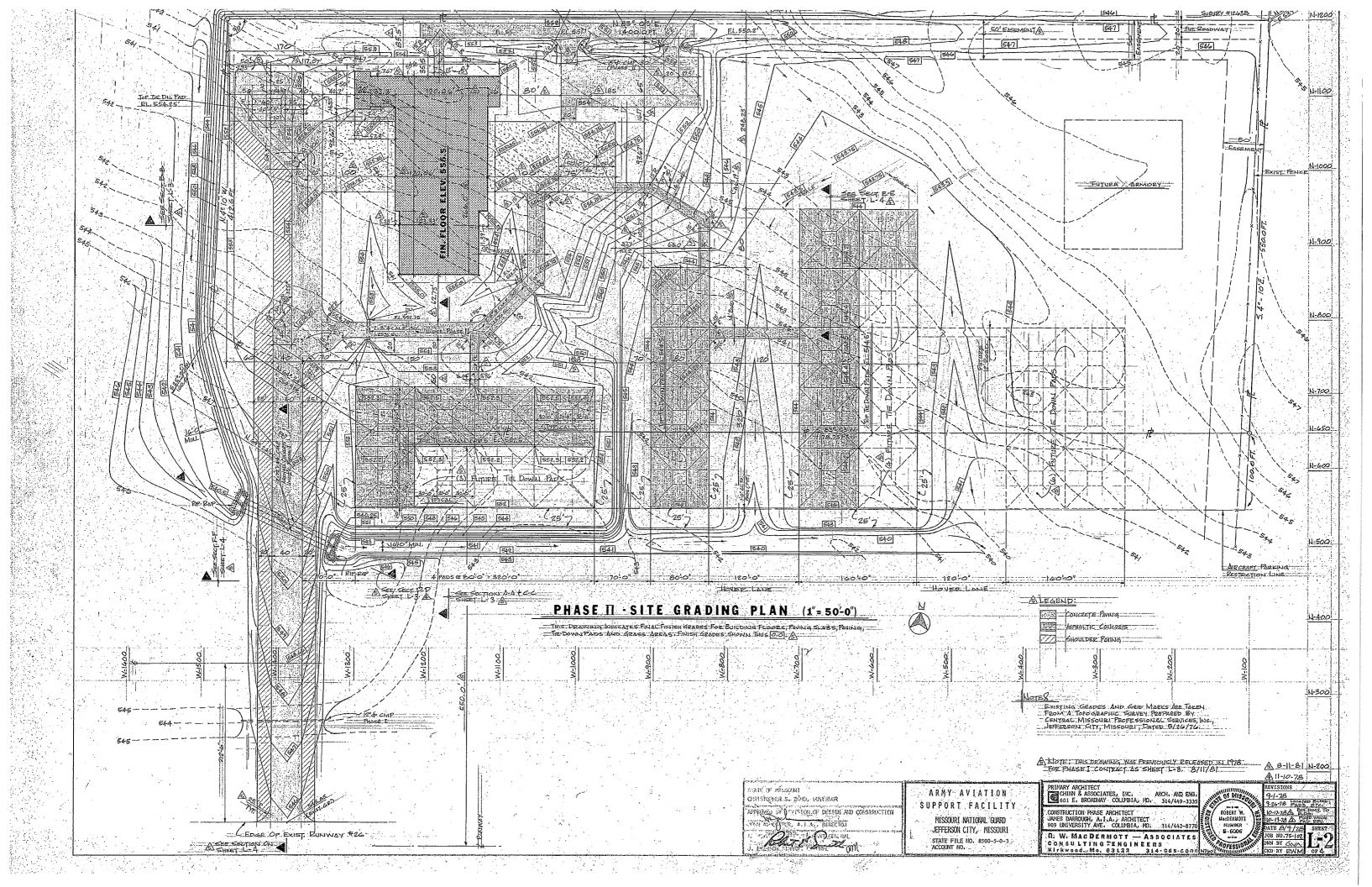
1 1/24/11 SFF related to the Missouri National Guard

Facilities at the Jefferson City Airport

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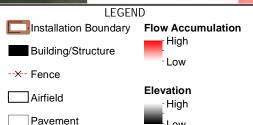
# **COOPER DRIVE ARMORY**

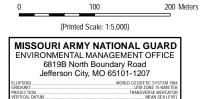


SURFACE RUNOFF ACCUMULATION ANALYSIS









THE MOARNG IS NOT LIABLE FOR NOR GUARANTEES
THE ACCURACY OF THIS DATA. THE INFORMATION
CONTAINED IN THIS MAP WAS PRODUCED FOR GENERAL
REFERENCE AND WAS DERIVED FROM TABULAR DATA,
AUTOCAD FILES, HISTORICAL RECORDS, LEGAL PROPERTY
DESCRIPTIONS, AND SURVEYS. INCONSISTENCIES
BETWEEN DATASETS ARE PRESENT.



# STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

# NPDES Permit #MO-R80F026

Jefferson City Cooper Drive Armory (Former JC AASF) 1225 Cooper Drive Jefferson City, Missouri 65109

**SWPPP Latest Revision Date:** February 2019

<u>Prepared by:</u>
Missouri Army National Guard
6819B North Boundary Road
Jefferson City, Missouri 65101-1207

# STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CERTIFICATION INFORMATION

A.	Facility Na	me:	Jefferson City Cooper Drive Armory			
В.	Permit Nun	nber:	MO-R80F026			
C.	Facility Typ	pe:	Militar	ry aircraft maintenance facility for the MOARNG.		
D.	Facility Add	dress:	1225 Cooper Drive Jefferson City, MO 65101			
Е.	E. Name and Address of Owner:		wner:	Missouri Army National Guard Environmental Management Office 6819B North Boundary Road Jefferson City, Missouri 65101-1207		
	Coordinato	` '	PP Coc	ble for Stormwater Pollution Prevention (SWPPP ordinator(s) will be responsible for overseeing inspection, MP's.		
Sigr	nature _			Date		
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# **APPENDICES**

APPENDIX A – Permit #MO-R80F026

APPENDIX B - Site Figure
APPENDIX C - SWPPP Routine Requirement Logs

# 1.0 INTRODUCTION

Airports that use de-icers or conduct uncovered vehicle or aircraft maintenance, washing, or fueling operations are subject to regulation under this permit. This permit requires storm water sampling, but the primary requirement of this permit is to develop and implement a Storm Water Pollution Prevention Plan (SWPPP).

This SWPPP has been prepared in accordance with the requirements of Missouri General Permit MO-R80F026. A copy of the permit is provided in Appendix A.

The goal of this SWPPP is to improve water quality by reducing pollutants in storm water discharges through identification of sources of pollution and establishment of measures that will prevent or control the discharge of pollutants. This SWPPP outlines site specific Best Management Practices (BMPs) that will be used to reduce the amount of pollutants entering surface water.

The purpose of this SWPPP is to meet the requirements of the storm water permitting program through:

- Identification of storm water drainage and discharge points;
- Identification of potential sources for storm water pollutants;
- Implementation of general and facility-specific BMPs to reduce or eliminate pollutants in storm water discharges;
- Implementation of a monthly inspection program.

#### 2.0 **FACILITY DESCRIPTION**

#### 2.1 Name of Facility

Jefferson City Cooper Drive Armory Missouri Army National Guard

#### 2.2 **Location of Facility**

The site is located in the SE 1/4, NE 1/4, Section 15, Township 44 North, Range 11 West in Callaway County, Missouri. The site address is 1225 Cooper Drive in Jefferson City, Missouri. Figure 1, Appendix B, is a site location map that shows the facility boundaries, outfall, and receiving stream (tributary to Niemans Creek).

#### 2.3 **Facility Description**

The Armory is currently operated as a military aircraft maintenance facility for the MOARNG. The major facility features consist of an aircraft hangar, two POL storage buildings, a drive-on secondary containment structure, a wash rack, taxiways, and aircraft parking pads. The 7th Civil Support Team (CST) has a seven-bay pole barn storage building used to primarily store vehicles. The perimeter of the property is fenced.

#### 2.4 **Area Description**

The Armory is located at the Jefferson City Memorial Airport in Jefferson City, Missouri. Area development includes commercial airport facilities associated with the Jefferson City Memorial Airport.

#### 2.5 **Owner and Storm Water Contact**

Name and address of owner/designated contact for regulatory concerns regarding storm water permitting:

Storm Water Contact
Mr. Tim Schulte
Ike Skelton National Guard Training Site
6819B N. Boundary Rd
Jefferson City, Missouri
573-638-9516
Armory Environmental Coordinator
CW3 Eugene Bequette
Jefferson City Cooper Drive Armory
1225 Cooper Drive
Jefferson City, Missouri
573-659-1424

# 2.6 Overview of Industrial Activities

Industrial activities at this site consist of several operational aspects of the Jefferson City Cooper Drive Armory. The hangar is used for intermediate maintenance of helicopters and airplanes and for thermal deicing of aircraft. This facility does not perform chemical de-icing of aircraft. Aircraft are stored outside; however, essentially all maintenance is performed inside the hanger. Maintenance activities include aircraft inspections, mechanical repairs, and servicing.

Outdoor industrial activities are generally limited to aircraft fueling and aircraft washing.

Aircraft are fueled on parking pads using a refueling truck from the Jefferson City Memorial Airport. Fuel is not stored in any mobile refuelers at the Cooper Drive Armory. A containment pad, equipped with a drain valve, is available at the facility. Fuel samples taken from aircraft is used in ground equipment.

The aircraft and vehicle washing takes place on a wash rack located east of the hangar building. The wash rack consists of a concrete slab with a drop inlet drain connected to an oil/water separator that flows to the municipal sanitary sewer. Approximately one aircraft is washed every month. A foam detergent is used as needed.

New and waste products on site include: used motor oil, lube oil, hydraulic oil, grease, cleaning compounds, turbine engine gas cleaner, zinc chromate coating, thinner, petroleum Naphtha UNI255, detergents, spray paints, and methyl ethyl ketone. These products are stored in the Petroleum, Oils and Lubricants (POL) storage room inside the hangar and used in the main hangar bay. In addition, the POL building northeast of the hanger is used to store bulk quantities of new POL. Hazardous wastes, including waste fuel, are stored in the hazardous waste storage building located northwest of the hangar. Used Sealed Lead Acid Batteries (SLAB) are stored in the Ground Support Equipment Shop acid cabinet. New, small lithium batteries are stored in the office area of the facility.

POL materials and hazardous wastes are transported between the buildings using drum dollies, forklift trucks, and/or hauling vehicles equipped with load-locks to reduce the potential for material spillage.

# 2.7 Antidegradation

Antidegradation and permit requirements direct that an analysis be conducted to document why no discharge or no exposure options are not feasible at this facility. Although the facility does contain a large portion of its processes and storage indoors, it does not contain all aspects of its industrial processes. To facilitate the operations of a flying field, cover is not practicable over the tarmac area. The tarmac area supports the takeoff and landing of helicopters, as well as the refueling of helicopters.

# 2.8 Storm Water Discharge Points

Storm water runoff generally flows to the south into a receiving ditch, then flows east to where it discharges off of the site and into a tributary to Niemans Creek which eventually flows into the Missouri River. FIGURE 2, APPENDIX B is a storm water flow diagram. The storm water discharge point is identified with a sign.

# 2.9 Potential Pollutant Source Areas

Table 1 describes the potential storm water pollutant sources, type and quantity of materials on-site, present management practices, potential storm water contact and risk assessment.

Table 1 Summary of Potential Pollution Sources and Pollution Potential			
Location	Jefferson City Army Aviation Support Facility (AASF)		
Potential Pollutants	F-24 POLs (petroleum, oils, lubricants). Pollutants from parked vehicles. Pollutants from parked aircraft.		
Storage Quantity/Annual Usage	Generate less than 110 gallons of used POLs (55-gallon drums). Use Less than 110 gallons of virgin POLs (quarts). 5 and 7-gallon portable fuel cans for diesel and gasoline.		
Present Management	Portable fuel cans are stored in a cabinet equipped with secondary containment near parking pads.  Outdoor aircraft wash rack flows through a grit/oil/water separator before discharging into the sanitary sewer system.  Fluid changes and lubrications are performed within the hangar.  Parts cleaning solvents are used in self-contained washing units.  New and used chemicals are stored indoors and are properly labeled.  Hazardous and flammable storage areas are regularly inspected for incidental spills.  Spill kits are available near chemical storage areas.  Extensive and thorough housekeeping BMPs are strictly enforced.  Service bays are cleaned daily.  Trash is disposed of in covered dumpsters.  No liquids are disposed in dumpsters.  Recycling of materials is encouraged.		
Storm Water Contact	Storm water may come in contact with parked GSA vehicles and trailers, incidental vehicle or helicopter leaks, improper response to spills, and various buildings on site.		
Risk Assessment	Potential for adverse storm water impacts are minimized by the inside storage of chemical materials and enforcement of BMPs and Standard Operating Procedures (SOPS).		

# 2.9.1 Significant Materials Stored On-Site

Aircraft are fueled on the parking pads using the fuel delivery truck from the nearby Jefferson City Memorial Airport. Bulk F-24 fuel is not stored on site. Vehicles and trailers are stored outside. All other paints, lubricants, and hazardous materials are stored within the POL buildings or the hangar.

# 2.9.2 Exposed Materials

Materials potentially exposed to storm water consist of the following:

- Preflight fuel check, waste fuel is stored in containers and used in ground equipment;
- Accidental spilled fuel on the parking pads/fueling areas;
- Wash water from the outside wash rack and associated detergent.

# 2.9.3 Storm Water Sampling

The permit requires storm water sampling from both outfalls during the months of January, February, and March. The following analyses are required by the permit: flow, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), pH, Total Suspended Solids, ethylbenzene, oil and grease, nitrate, Ammonia as N, and chloride. Sampling shall take place during operational hours within the first 60 minutes of storm water discharge, if possible. Once available, analytical reports will be reviewed to determine if any limitations are exceeded. If exceedances are determined, the MOARNG will try to identify the cause of the exceedance and take action as appropriate to avoid future exceedances.

# 2.9.4 Non-Storm Water Discharges

All industrial, non-storm water discharges at the site are connected to the municipal sanitary sewer system and do not come into contact with storm water.

# 3.0 STORM WATER MEASURES AND CONTROLS

Implementing BMPs to prevent or mitigate pollutants from entering storm water discharges from the industrial activity areas of the facility is an integral part of the storm water pollution prevention program. General and site-specific BMPs and the storm water management measures and controls, which have been and will be implemented, are discussed below.

### 3.1 General BMPs

General BMPs are a broad class of measures which may include processes, procedures, scheduling of activities, and prohibition of certain practices to prevent or reduce storm water pollution. General BMPs used at the facility include the following:

- Preventative maintenance:
- Good housekeeping;
- Spill prevention and response;
- Materials management.

# 3.1.1 Preventative Maintenance

Equipment requires maintenance to perform as designed and to minimize the potential for pollution. National Guard facilities and equipment are maintained at a high degree of readiness. Preventative maintenance activities include:

- Monthly inspection of all storm water management controls and drains for indications of damage or evidence of discharge of pollutants in accordance with storm water permit;
- Record keeping of all inspections of storm water management controls and drainage areas;
- Deicing chemical use log is kept to record the number of pounds of chemical used.

# 3.1.2 Good Housekeeping

Good housekeeping practices are designed to maintain a clean, safe work area which reduces the possibility of spills. Awareness of good housekeeping is essential to storm water pollution prevention awareness. Good housekeeping BMPs include at a minimum:

- All equipment washing occurs on the wash rack;
- Minimal detergents are used to wash equipment on the wash rack;
- Recycling of materials is encouraged, such as cardboard, paper, and scrap metal;
- Parts cleaning solvent is used in self-contained washing units and serviced every 3-4 months by Safety-Kleen;
- Solid waste dumpsters are kept covered;
- Disposal of liquids in dumpsters is prohibited;
- Minimal amounts of ice-melt is used as necessary to maintain safe drives;
- Minimal amounts of herbicide are used as necessary; usage is reported on AGMO 200-5;
- Containers are kept closed when not in use.

# 3.1.3 Spill Prevention and Response

This minimizes the potential for release of petroleum products and subsequent exposure to storm water.

This includes the following controls and good operating practices:

- Fuel deliveries are monitored by trained staff;
- All deicing of aircraft is performed with heaters inside the hangar no chemical deicers are used on aircraft;
- Hazardous materials, which may be spilled, are not generally stored outdoors or outside of containment areas;
- The aircraft wash rack effluent flows through an grit/oil/water separator before discharging into a sanitary sewer system;
- Outdoor aircraft maintenance is discouraged;
- Chemicals, batteries, and wastes are stored indoors on containment pallets, or within spill protection areas;
- Spill kits are available near storage areas;
- Material storage containers are maintained as necessary and replaced if leaking;
- Used oil filters are drained, crushed, and recycled;
- Liquid wastes, such as POLs or other potentially hazardous materials, are not poured down drains;
- Fuel samples from aircraft are stored in closed containers.

# 3.1.4 Materials Management

Materials management is a critical step in spill prevention and storm water pollution prevention awareness. Minimizing the quantity of materials stored, proper storage conditions, and proper disposal practices minimize the pollution potential of stored materials. Material management BMPs include:

- Storage of excess quantities of materials is discouraged;
- New product is stored in sealed containers;
- Materials are stored in compatible containers and properly labeled;
- Hazardous and flammable materials are stored and labeled properly;
- Small waste materials, such as tires, are stored under cover or indoors;
- Equipment is covered or moved under shed roofs if visible evidence of oil or greases is observed;
- Scrap metal is either free of oils and greases or is placed under covered areas;

# 4.0 SWPPP ROUTINE REQUIREMENTS

# 4.1 Monthly Inspections

Monthly inspections will be conducted to ensure the effectiveness of the sites BMP's on protecting the storm water quality. Inspections will be recorded on the form in Appendix C or on a similar log and will be kept with the SWPPP at the facility. All inspection logs shall have the following information:

- BMP effectiveness;
- BMP deficiencies;
- Corrective measures taken;
- Date of inspection;
- Initials of inspector; and
- Brief written report

Recorded deficiencies MUST be corrected within 7 days.

# **4.2** Deicing Chemical Use Inventory

During the winter months, if deicing chemicals are used, a log will be kept, in Appendix C, of the following information:

- Date;
- Name of person recording information;
- Deicing chemical product name;
- Number of pounds used;
- Concentration of deicing chemicals in product.

An annual report will be submitted to DNR via the eDMR system by 28 January of each year detailing deicer usage for the previous calendar year.

Currently, a minimal amount of deicing product is used. Ice-Melt is used around door entrances and to maintain the sidewalks. This typically results in less than 100 pounds being used each winter season. The Missouri Department of Natural Resources (DNR) has confirmed the practice of submitting a negative deicer report (stating no deicer was used) when a negligible amount of deicer is used.

# 4.3 Personnel Training

Training will be provided to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Several training programs are in place to provide training to applicable personnel. The Environmental Coordinator and Environmental Awareness courses give participants an overview of many environmental regulations, including the importance of using and maintaining Best Management Practices. The records of attendance for the courses will be kept on-site.

In the event that training is not immediately available at the time of a new personnel appointment, adequate training and guidance will be given to the new employee as appropriate for their job responsibilities.

# 4.4 SWPPP Reviews and Updates

This SWPPP will be reviewed and updated when it is found that BMP's are not effective or when

operations have significantly changed at the facility.

# 4.5 SWPPP Records Retention

This SWPPP, logs, and other permit related records will be maintained at the facility for at least three years.

# 5.0 AMENDMENT OF SWPPP

# **5.1 Reasons for SWPPP Amendment**

This SWPPP will be reviewed and updated when it is found that BMP's are not effective or when operations have significantly changed at the facility.

5.2 Amendment Log

5.2 / Killendine			1
Amendment			
No.	Date	Brief Description of Amendment	Prepared By
		Reviewed and updated SWPPP to incorporate	
		current practices. Included a revised monthly	
1	3/23/2017	inspection checklist.	Angela Neal
_	0.20.20.7	Updated SWPPP due to new permit, effective	
2	1/23/2018	1 January 2018	Angela Neal
	1/23/2010	1 January 2018.  Reviewed SWPPP and BMPs due to a	7 Higola i voai
3	2/14/2019	stormwater sample with a low pH (6.16).	Angela Neal
<u> </u>	2/14/2017	stormwater sample with a low pir (0.10).	Aligeia Iveal
<u></u>			

# APPENDIX A

Permit #MO-R80F026

5.110 Jefferson City Cooper Drive Armory Callaway County #MO-R80F026

January 2, 2018

NGMO EM Missouri Army National Guard 6819B N Boundary Rd Jefferson City, MO 65101

# Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, the department has issued and is enclosing a General State Operating Permit for Jefferson City Cooper Drive Armory.

Please review the requirements of your permit. Monitoring reports that may be required by this permit must be submitted on a periodic basis. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent data about the NPDES program. All general covered permitted facilities under this master general permit shall comply with the department's requirements for electronic reporting.

Depending on which permit you possess, there may be several different types of discharges that require monitoring and reporting. For your convenience common designators are listed below to assist with your reporting requirements via eDMR. Your permit may include one or more of the following designators:

PD - All Facilities with < 1,000 Jet Departures Annually AR - Annual Report

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to satisfy the permit requirements, an appointment can be set up by contacting your local regional office at (660) 385-8000. These visits are called Compliance Assistance Visits (CAV) and focus on explaining the requirements to the permit holder.



Jefferson City Cooper Drive Armory January 2, 2018 Page 2

This general permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits and letters of approval for the discharges described within. In all future correspondence regarding this permit, please refer to your general permit number as shown on page one of your permit.

If you were adversely affected by this decision, you may be entitled to an appeal before the administrative hearing commission pursuant to 10 CSR 20-1.020 and Sections 644.051.6 and 621.250, RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission. Contact information for the AHC is as follows: Administrative Hearing Commission, United States Post Office Bldg., Third Floor, 131 West High Street, Jefferson City, MO 65101, Phone: 573-751-2422, Fax: 573-751-5018, Website: www.oa.mo.gov/ahc.

Please be aware that this facility may also be subject to any applicable county or other local ordinances or restrictions. If your permit is issued within six months of the expiration date of the attached permit, this letter also serves as a notification to resubmit an application for renewal or termination.

If you have questions, please contact Mary Culler at (660) 385-8000 in the Northeast Regional Office, 1709 Prospect Drive, Macon, MO 63552.

Sincerely,

NORTHEAST REGIONAL OFFICE

Irene Crawford Regional Director

IC/mcm

Enclosures: Missouri State Operation Permit #MO-R80F026

Standard Condition Parts I

Facility Outfall Map

# STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



# MISSOURI STATE OPERATING PERMIT

# **General Operating Permit**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No	MOR80F026
Owner: Address:	NGMO EM Missouri Army National Guard 6819B N Boundary Rd
	Jefferson City, MO 65101
Continuing Authority:	NGMO EM Missouri Army National Guard 6819B N Boundary Rd
	Jefferson City, MO 65101
Facility Name:	Jefferson City Cooper Drive Armory
Facility Address:	1225 Cooper Dr JEFFERSON CITY, MO 65109
Legal Description:	See Page 2
UTM Coordinates:	See Page 2
Receiving Stream:	See Page 2
First Classified Stream - ID#:	See Page 2
USGS# and Sub Watershed#:	See Page 2
is authorized to discharge from the facil set forth herein.	ity described herein, in accordance with the effluent limitations and monitoring requirements as
FACILITY DESCRIPTION All Outfalls - Stormwater discharges from	All Outfalls SIC #4581 om air transportation facilities involved in vehicle maintenance and/or deicing.
Pollutant Discharge Elimination System	including storm water, discharges under the Missouri Clean Water Law and the National, it does not apply to other regulated areas. This permit may be appealed in accordance with 10 CSR 20-6.020, and 10 CSR 20-1.020.
January 01, 2018 Issue Date	Edward B. Galbraith, Director Division of Environmental Quality
November 27, 2022 Expiration Date	Irene Crawford, Regional Director

Northeast Regional Office

Outfall Number: 001

Legal Description: Land Grant 02638, Callaway County UTM Coordinates: 574084.952/4271840.270

Receiving Stream: Tributary to Niemans Creek(U)

First Classified Stream - ID#: 8-20-13 MUDD V1.0 (C) 3960.00

USGS# and Sub Watershed#: 10300102 - 1305

Outfall Number: 002

Legal Description: Land Grant 02638, Callaway County

UTM Coordinates: 574084.365/4271840.270

Receiving Stream: Tributary to Niemans Creek(U)

First Classified Stream - ID#: 8-20-13 MUDD V1.0 (C) 3960.00

USGS# and Sub Watershed#: 10300102 - 1305

# **APPLICABILITY**

1. This permit authorizes the discharge of stormwater runoff from airports to waters of the State of Missouri, including, but not limited to, establishments with the following Standard Industrial Classification (SIC) codes:

SIC Code	Activity
4512	Air Transportation, Scheduled
4513	Air Courier Services
4522	Air Transportation, Nonscheduled
4581	Airports, Flying Fields and Airport Terminal Services

- 2. This permit authorizes stormwater discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations. <u>Deicing</u> is defined as procedures and practices to remove or prevent any accumulation of snow or ice on an aircraft or on airfield pavement unless specific mention is made otherwise.
- 3. For the purpose of this permit, <u>stormwater</u> is defined as water from rain or melting snow/ice in sufficient quantities that it runs off over land and impervious surfaces and discharges to waters of the state instead of seeping into the ground.
- 4. For the purpose of this permit, <u>aircraft deicing fluid</u> means a fluid (other than hot water) applied to aircraft to remove or prevent any accumulation of snow or ice on the aircraft. This includes deicing and anti-icing fluids.
- 5. This permit does not authorize the discharge of any waters other than stormwater, except such non-stormwater discharges as are outlined below. Discharge of other wastewaters, spills or other materials is a violation of Missouri Clean Water Law. The following are allowable non-stormwater discharges authorized under this permit:
  - (a) Discharges from fire-fighting activities;
  - (b) Fire hydrant flushing (testing);
  - (c) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
  - (d) Routine external building wash down that does not use detergents;
  - (e) Foundation or footing drains where flows are not contaminated with process materials; and
  - (f) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
- 6. The **first time** an airport applies for coverage under this permit, the proposed permit must be placed on public notice for 30 days per 10 CSR 20-6.020(1)(C)2. For a renewal of the permit for an existing airport, the proposed permit must be placed on public notice for 30 days **only** if the facility has been in significant noncompliance during the time of the previous permit per 10 CSR 20-6.020(1)(C).2.
- 7. Holders of current site-specific permits who desire to apply for inclusion under this general permit should contact the Department for application requirements.
- 8. If at any time the Department determines that the quality of waters of the state may be better protected by requiring the facility to apply for a site-specific permit, the Department may do so.
- 9. If at any time the facility should desire to apply for a site-specific permit, the owner may do so.
- 10. Airports that do not use chemical deicing on the runways or aircraft <u>and</u> do not conduct vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication, or equipment cleaning operations) on premises are exempt from this permit. If the Department determines that the operating practices are not adequate, a permit may be necessary to protect the environment.

- 11. If a facility has no materials exposed to stormwater, the facility may apply for No Exposure Certification in lieu of coverage under this permit. No Exposure means that all industrial materials and activities are protected by, and contained within, a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling or storage, equipment maintenance activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. The requirements are listed in full at 10 CSR 20-6.200(1)(B)16.A.(I) B.(III).
- 12. St. Louis Lambert International Airport, Kansas City International Airport and any other airports that use more than 100,000 gallons of glycol-based deicing/anti-icing chemicals and/or 100 tons of urea or calcium chloride per year, combined, are precluded from coverage under this general permit and are required to apply for a site-specific permit.
- 13. This permit does not apply to stormwater discharges:
  - (a) Within 300 feet of a Class W<sup>1</sup> or mitigated wetland,
  - (b) Within 1,000 feet upstream of sinkholes, or other direct conduit to groundwater;
  - (c) Within 1,000 feet of an Outstanding National Resource Water<sup>1</sup> or Outstanding State Resource Water<sup>1</sup>;
  - (d) Within two (2) stream miles upstream of biocriteria reference locations<sup>1</sup>;
  - (e) Within two (2) miles upstream of streams, lakes, or reservoirs with the designated use of drinking water supply<sup>1</sup>; or
  - (f) Within two (2) miles upstream of streams, lakes, or reservoirs identified as critical habitat for endangered species<sup>1</sup>.
- 14. For discharges within the watershed of Outstanding National Resource Waters (ONRW), which includes the Ozark National Scenic Riverways and the National Wild and Scenic Rivers System, this permit:
  - (a) Authorizes no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate. Any discharge from a no-discharge facility will be considered a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)] occurs. In the event of a catastrophic or chronic storm event, the no-discharge facility is authorized to release only the amount of stormwater required to prevent damage to the facility or established Best Management Practices (BMPs).
  - (b) Authorizes stormwater discharge facilities to operate and continue to discharge stormwater so long as the effluent limitations set forth in this permit are not exceeded. Should a value be exceeded, the discharge is considered to cause degradation in water quality of the ONRW and the facility must take corrective action to meet the effluent limits. Outstanding Resource Waters are protected against any degradation in quality as defined in 10 CSR 20-7.015(6) and 7.031(3)(C). Failure to take corrective action to address an exceedance and failure to make tangible progress towards achieving compliance is a permit violation. More detailed requirements concerning stormwater discharges are found in the Stormwater Requirement section of this permit. If exceedances continue to occur, the Department may require the facility to operate as a nodischarge facility under this permit or to apply for a site-specific permit.
- 15. Facilities that discharge directly to a combined sewer system are exempt from permit requirements.
- 16. This general permit does not apply to land disturbance activities. A separate general permit must be obtained to cover land disturbance activities.
- 17. Facilities that are located within the watershed of an impaired water as designated on the 305(b) Report must be evaluated on a case-by-case basis for inclusion under this permit. Missouri's impaired waters can be found at <a href="https://www.dnr.mo.gov/env/wpp/waterquality/index.html">www.dnr.mo.gov/env/wpp/waterquality/index.html</a>. Facilities that are found to be discharging the listed pollutant(s) of concern for any impaired water may be required to obtain a site-specific permit.
- 18. A construction permit is not required for oil and water separators built to meet permit requirements. An operating permit may be needed for an oil and water separator if the separator discharges to waters of the state. The facility should check with their local Department regional office for guidance.

<sup>&</sup>lt;sup>1</sup> Identified or described in 10 CSR 20-7 Water Quality. These regulations are available at many libraries and online at <a href="https://www.sos.mo.gov">www.sos.mo.gov</a>, or may be purchased from the Department of Natural Resources by calling the Water Protection Program.

# REQUIREMENTS

- 1. Electronic Discharge Monitoring Report (eDMR) Submission System. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally-consistent set of data about the NPDES program. All general permit covered facilities under this master general permit shall comply with the Department's requirements for electronic reporting.
  - (a) Discharge Monitoring Reporting Requirements.
    - (1) Application to participate in the Department's eDMR system is required as part of the application for general permit coverage in order to constitute a complete permit application and may be accessed at <a href="mailto:dnr.mo.gov/env/wpp/edmr.htm">dnr.mo.gov/env/wpp/edmr.htm</a>.
    - (2) The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
  - (b) Other actions. The following shall be submitted electronically after such a system has been made available by the Department:
    - (1) General Permit Applications/Notices of Intent to discharge (NOIs);
    - (2) Notices of Termination (NOTs);
    - (3) No Exposure Certifications (NOEs); and
    - (4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs).
  - (c) Electronic Submissions. To access the eDMR system, use the following link in your web browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.
  - (d) Waivers from Electronic Reporting.
    - (1) The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127.
    - The permittee may obtain a temporary or permanent electronic reporting waiver by first submitting an eDMR Waiver Request Form (Form 780-2692): <a href="http://dnr.mo.gov/forms/780-2692-f.pdf">http://dnr.mo.gov/forms/780-2692-f.pdf</a>, by contacting the appropriate permitting office or emailing <a href="mailto:edmr@dnr.mo.gov">edmr@dnr.mo.gov</a>. The Department will either approve or deny this electronic reporting waiver request within 120 calendar days of receipt. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period that the approved electronic reporting waiver is effective.
- Discharge of stormwater contaminated with deicing/anti-icing chemicals is only authorized as part of deicing/antiicing activities. Dumping of unused, out of specification, rinsate or product directly or indirectly into waters of the state is prohibited.
- 3. Existing and new primary airports (commercial service airports with more than 10,000 passenger boardings a year) with 1,000 or more annual jet departures ("non-propeller aircraft") that generate wastewater associated with airfield pavement deicing are to use non-urea-containing deicers, or alternatively, meet the numeric limit for ammonia as nitrogen daily maximum of 14.7 mg/L as expressed in 40 CFR 449.10.
- 4. <u>Annual Report</u>: The permittee shall submit an annual report by January 28th of each year detailing each deicer, antiicer, or solvent used at the facility. The annual report will include:
  - (a) Chemical types, such as "Urea" or "Sodium Chloride"
  - (b) Concentrations used, such as "10%", and
  - (c) Total volume or mass of the deicer used in the previous calendar year.
- 5. In addition to the requirements of this permit, the Department may require further sampling and reporting as a result of illegal discharges, compliance issues, complaint investigations, or evidence of off-site impacts from activities at the facility. If such an action is needed, the Department will specify in writing the sampling requirements, including such information as location and extent. It is a violation of this permit to fail to comply with said written notification to sample.
- 6. All outfalls must be clearly marked in the field. Outfall signage shall be clearly visible from both land and water perspectives where applicable.
- 7. It is a violation of Missouri Clean Water Law to fail to pay fees associated with this permit (§ 644.055, RSMo). The fees can be found at 10 CSR 20-6.011.

- 8. Compliance with all requirements in this permit does not supersede nor remove liability for compliance with county and other local ordinances.
- 9. Compliance with all conditions in this permit is required. The full implementation of this operating permit shall constitute compliance with all applicable federal and state regulations in accordance with §644.051 RSMo, and the CWA section 402(k).
- 10. The Department may collect a sample of stormwater discharge during site inspection.
- 11. A record of each reportable release of hazardous substance/spill shall be retained along with the Stormwater Pollution Prevention Plan (SWPPP) and made available to the Department upon request. Reportable release records are not required to be incorporated into the SWPPP, but may be kept separately so long as they are readily available to the Department. The Department may also require the submittal of a written report detailing measures taken to clean up the spill within 5 days of the spill. Such a report must include the type of material spilled, volume, date of spill, date clean-up was completed, clean-up method, and final disposal method. If the spill occurs outside of normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the spill to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436. Leaving a message on a Department staff member voice-mail does not satisfy this reporting requirement. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.
- 12. The SWPPP documents and record of reportable spills may be kept in an electronic format so long as a copy is accessible to facility staff on site and to the Department upon request.

# **EFFLUENT LIMITATIONS**

TABLE A	STORMWAT	TER EFFLUE	T LIMITATION	S AND MONIT	ORING REQUIREM	ENTS
effluent limitation	horized to discharge from ouns shall be effective at issuan arges shall be controlled, lim	ce of the Mast	er General Permit	and remain in e	effect for the life of the	permit. These final ne permit.
PARAMETE	rs, All Outfalls	Units	DAILY MAXIMUM	MONTHLY AVERAGE	SAMPLE FREQUENCY**	SAMPLE TYPE
All Facilities w Limit Set: PD	ith < 1,000 Jet Departur	es Annually				
	Flow	mgd	*	*	Monthly	24 hour estimate
Biochemical Ox	kygen Demand <sub>5</sub> (BOD)	mg/L	90	60	Monthly	grab
Chemical Oxy	ygen Demand (COD)	mg/L	120	90	Monthly	grab
	pH***	SU	6.5 - 9.0	6.5 - 9.0	Monthly	grab
Total Su	spended Solids	mg/L	70	70	Monthly	grab
Eth	nylbenzene	mg/L	0.32	0.32	Monthly	grab
Oil	and Grease	mg/L	15	10	Monthly	grab
(	Chloride •	mg/L	860	860	Monthly	grab
Ammon	nia as Nitrogen*	mg/L	*	*	Monthly	grab
	Nitrate*	mg/L	*	*	Monthly	grab
All Facilities w Limit Set: JD	ith ≥ 1,000 Jet Departur	es Annually	(Note 2)			
	Flow	mgd	*	*	Monthly	24 hour estimate
Biochemical Ox	xygen Demand <sub>5</sub> (BOD <sub>5</sub> )	mg/L	90	60	Monthly	grab
	ygen Demand (COD)	mg/L	120	90	Monthly	grab
	pH***	SU	6.5 - 9.0	6.5 - 9.0	Monthly	grab
Total S	uspended Solids	mg/L	70	70	Monthly	grab
Etl	hylbenzene	mg/L	0.32	0.32	Monthly	grab
Oil	and Grease	mg/L	15	10	Monthly	grab
(	Chloride <sup>•</sup>	mg/L	860	860	Monthly	grab
Ammoi	nia as Nitrogen	mg/L	14.7	14.7	Monthly	grab
	Nitrate*	mg/L	*	*	Monthly	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY FOR THE MONTHS OF JANUARY, FEBRUARY AND MARCH VIA THE DEPARTMENT'S eDMR system. Should a waiver to eDMR be granted by the department, paper reports shall be submitted in a timely manner to the appropriate regional office. The first report is due <u>FEBRUARY 28, 2018</u>. It is a violation of this permit to fail to sample.

- \* Monitoring requirement only.
- \*\* One sample must be taken monthly in the designated months of January, February and March when there is a discharge (a discharge includes runoff from precipitation, sleet, or freezing rain as well as run off from melting frozen precipitation). See Table B below. If there is no discharge for a particular month, report no discharge.
- \*\*\* pH is measured in pH standard units and is not to be averaged.
- If a facility uses a deicing product that contains no chloride and no urea, ammonia or nitrate-nitrogen, they may report a value of "0" for this parameter. By reporting a value of zero, the facility certifies that they are using deicing products that do not contain these parameters. It is the facility's responsibility to know what chemicals are in the products they use.
- Note 1: When monitoring stormwater, a representative grab sample shall be taken during operational hours within the first 60 minutes of stormwater discharge, if possible. Samples shall be collected from an active discharge on the facility property before entering any water of the state. Stormwater samples shall not be collected from standing pools.
- Note 2: Facilities in this category must use non-urea-containing deicers OR meet the effluent limit for Ammonia as Nitrogen in Table A.

Table B	Sample and Reporting Schedule				
Report Type		Report Period	Report Due		
Annual Report		January - December	January 28		
Table A, Sample di	scharge for the	January February	February 28 March 28		
months of:		March	April 28		

# STORMWATER REQUIREMENTS

1. When applying for coverage under this permit, the facility shall develop a SWPPP. The facility shall select, install, use, operate, and maintain the BMPs prescribed in the SWPPP in accordance with the concepts and methods described in the following document: *Developing Your Stormwater Pollution Prevention Plan, a Guide for Industrial Operators*, (EPA 833-B-09-002) published by the United States Environmental Protection Agency (EPA) in June 2015 (<a href="https://www.epa.gov/npdes/industrial-stormwater-guidance">https://www.epa.gov/npdes/industrial-stormwater-guidance</a>). The selection of control measures that prevent or reduce the discharge of pollutants in stormwater shall be specified in the SWPPP.

The SWPPP shall identify the BMPs that are reasonable and effective, taking into account environmental impacts and costs. This analysis must document why no discharge or no exposure options are not feasible at the facility. This selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of Antidegradation [10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.]. Failure to implement and maintain the chosen alternatives is a permit violation. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address effluent limit exceedances.

The EPA has published a Fact Sheet addressing BMPs specifically for airports: *Sector S Vehicle Maintenance Areas, Equipment Cleaning Areas, or Deicing Areas Located at Air Transportation Facilities,* (EPA-833-F-06-034) published by the EPA in December 2006 which may be useful and can be found at: <a href="https://www.epa.gov/sites/production/files/2016-04/documents/sector-s-airtransmaint.pdf">www.epa.gov/sites/production/files/2016-04/documents/sector-s-airtransmaint.pdf</a>.

# (a) New Facilities:

New facilities that are being issued coverage under this general permit for the first time, the SWPPP must be prepared within sixty (60) days and implemented within one hundred eighty (180) days of the permit issuance.

# (b) Existing and Expanding Facilities:

- (1) An existing facility was required to prepare a SWPPP for coverage under a previous version of this permit. The existing SWPPP for the facility must be reviewed, revised as necessary and implemented within 30 days of reissuance of coverage. The general permit requires all facilities to develop and maintain a SWPPP. The SWPPP shall document any changes made to BMPs to correct deficiencies.
- (2) Expanding facilities are required to review and revise the SWPPP as necessary to account for the facility expansion. Once expansion occurs the revised SWPPP must be implemented within 30 days of permit modification.

### (c) All Facilities:

- (1) Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
- (2) The SWPPP must be kept on-site and be made readily available to the Department upon request.
- (3) The SWPPP should not be sent to the Department unless specifically requested.
- (4) The SWPPP must include the following:
  - a. An assessment of all stormwater discharges associated with the facility, facility activities, and facility materials. This assessment must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities.
  - b. A listing of BMPs and a narrative explaining how the BMPs will be implemented to control and minimize the amount of potential contaminants that enter stormwater.
  - c. A schedule for monthly site inspections and a brief written report, which includes the name of the inspector, the signature of the inspector, and the date. The inspections must include observation and analysis of BMP effectiveness, deficiencies, and corrective action that will be taken. Deficiencies must be corrected as soon as possible, but not longer than seven (7) days from discovery and must be documented in the inspection report. The facility may submit a written request to the Department justifying additional time, if necessary, to complete corrective action. The purpose of the SWPPP and the BMPs listed therein is to prevent pollution [10 CSR 20-2.010(56)] of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution of waters of the state or meeting effluent limitations of this permit. Corrective action means the facility took steps to eliminate the deficiency. Inspection reports must be kept with the SWPPP and must be made available to the Department upon request.
  - d. A provision for designating an individual to be responsible for environmental matters.

- e. A provision for providing training to all personnel involved in material handling, material storage, and housekeeping of areas having materials exposed to stormwater. Proof of training must be made available to the Department upon request.
- f. A provision for evaluating effluent limitations established in this permit.
- 2. The following minimum BMPs must be implemented at all facilities:
  - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, deicing or warehouse activities and thereby prevent the contamination of stormwater from these substances.
  - (b) Provide collection facilities on-site and arrange for proper disposal of waste products including, but not limited to, petroleum waste products, solid waste, de-icing/anti-icing products, and solvents.
  - (c) Store all paints, solvents, petroleum products, petroleum waste products in storage containers (such as drums, cans, or cartons) so that these materials, and the storage containers themselves (where possible), are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged as stormwater under this permit. Commingled water must be disposed of in the same manner as the substance or chemical with which it is commingled. Provide spill prevention, control, and countermeasures to prevent any spill of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall prevent the contamination of groundwater.
  - (d) Provide sediment and erosion control sufficient to prevent sediment loss off of the property, pollution of waters of the state, and to comply with the conditions of this permit, Missouri Clean Water Law, and the CWA. This may require the use of silt fences, sediment basins or other treatment structures.
  - (e) Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
- 3. All stormwater samples should be collected within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater within a 24-hour period. Stormwater samples should be collected prior to or at the leased or owned property boundary and before the discharge enters a water of the state on the facility property. Local weather stations and on-site gauges are two methods for obtaining local precipitation amounts.
- 4. This permit stipulates effluent limits applicable to the facility's discharge. Exceedances believed to be the result of legacy chemical use at the facility are not exempted from this requirement. Facilities are encouraged to contact the Department to formulate a plan for investigation and clean-up if legacy chemical use is suspected to be the cause of exceedances.
- 5. Effluent limitations in Table A are considered necessary to protect existing water quality and should not be exceeded during discharges resulting from a precipitation event up to and including the 10-year 365-day rainfall event (chronic) or the 25 year 24-hour rainfall event (catastrophic) according to National Weather Service data. Design Storm Maps and Tables can be found at <a href="http://ag3.agebb.missouri.edu/design\_storm/">http://hdsc.nws.noaa.gov/hdsc/pfds/pfds\_map\_cont.html?bkmrk=mo</a>. Failure to address a limit exceedance with corrective action is a permit violation.
- 6. If data becomes available that indicates existing water quality will be protected by alternative limits specific to this industry, the Department will propose to incorporate those limits into this permit as part of a permit modification. Such data must be approved by the Department as appropriate and representative before it can be considered.

# STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Standard Conditions Part I dated August 1, 2014, and hereby incorporated as though fully set forth herein.

# **SPECIAL CONDITIONS**

- 1. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - (a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - (b) Controls any pollutant not limited in the permit.
- 2. Changes in Discharges of Toxic Substances. The permittee shall notify the Director as soon as it knows or has reason to believe:
  - (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 ug/L);
    - (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile;
    - (3) Five hundred micrograms per liter (500 ug/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
    - (4) One milligram per liter (1 mg/L) for antimony;
    - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (6) The level established in Part A of the permit by the Director.
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
  - (c) A list of toxic pollutants can be found listed in 10 CSR-20, Chapter 7, Table A, or 40 CFR 122, Appendix D.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

# PERMIT RENEWAL

Unless terminated, the permittee shall submit an application for the renewal of this permit by submitting Form E-Application for General Permit <a href="http://dnr.mo.gov/forms/780-0795-f.pdf">http://dnr.mo.gov/forms/780-0795-f.pdf</a> no later than thirty (30) days prior to the permit's expiration date. If a facility submits a timely and complete application in accordance with 10 CSR 20-6.010(5) and (10)(E), as well as § 644.051.10 RSMo 2015, if the Department is unable, through no fault of the permittee, to issue a renewal prior to expiration of the previous permit, the terms and conditions of the expired permit are administratively continued and will remain fully effective and enforceable until such time when a permit action is taken. Failure to submit a renewal application for a facility that is still in operation is a violation of the Missouri Clean Water Law. Participation in the Department's Electronic Discharge Monitoring Report Submission System (eDMR) is required as part of a complete application. Facilities already participating in eDMR need not reapply upon renewal. More information can be found at: <a href="http://dnr.mo.gov/env/wpp/edmr.htm">http://dnr.mo.gov/env/wpp/edmr.htm</a>. Failure to apply for renewal of a permit may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

# PERMIT TRANSFER

This permit may not be transferred to a new owner in any fashion except by submitting an *Application for Transfer of Operating Permit* <a href="http://dnr.mo.gov/forms/780-1517-f.pdf">http://dnr.mo.gov/forms/780-1517-f.pdf</a> signed by the seller and buyer of the facility along with the appropriate modification fee. In some cases, revocation and reissuance may be necessary. Facilities with transfers carried out without prior notice to the Department will be considered to be operating without a permit and may be assessed an administrative penalty.

# PERMIT TERMINATION

The permitee shall apply for permit termination when activities covered by this permit have ceased and no significant materials [as defined by 10 CSR 20-6.200(1)(C)27.] remain on the property or if on the property, are stored in such a way as to have no potential for pollution. Whenever a release or a potential for release from a permitted facility is permanently eliminated the existing permit may be terminated. In order to terminate this permit, the permittee shall notify the Department's appropriate regional office by completing and submitting Form H-Request for Termination of a General Permit <a href="http://dnr.mo.gov/forms/780-1409-f.pdf">http://dnr.mo.gov/forms/780-1409-f.pdf</a>. Inspection of the premises by the regional office may be required as a part of the permit termination approval process.

# PUBLIC NOTICE OF GENERAL PERMIT COVERED FACILITIES

As required by 10 CSR 20-6.020(1)(C)2., permits proposed to be issued to a newly constructed airport must undergo public notification in accordance with 10 CSR 20-6.020 prior to issuance. Public Notice of reissuance is required only if the facility was found to be in significant noncompliance during the time of the previous permit. All master general permits are required to undergo not less than 30 days public notice before the permit becomes effective.

# Missouri Department of Natural Resources

FACT SHEET FOR THE PURPOSE OF RENEWAL

OF

# MO-R80F000 MASTER GENERAL PERMIT

The Federal Water Pollution Control Act [Clean Water Act (CWA)] Section 402 of Public Law 92-500 (as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the CWA). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (permits) are issued by the Missouri Department of Natural Resources (Department) under an approved program, operated in accordance with federal and state laws (Federal CWA and Missouri Clean Water Law Section 644 as amended). Permits are issued for a period of five (5) years unless otherwise specified.

Per 40 CFR 124.56, 40 CFR 124.8, and 10 CSR 20-6.020(1)(A)2., a Fact Sheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the permit. A Fact Sheet is not an enforceable part of a Missouri State Operating Permit.

This Fact Sheet is	s for a:
	Major
	Minor
	Industrial Facility
	Variance
$\boxtimes$	Master General Permit
П	Permit with widespread public interest

# PART I – FACILITY INFORMATION

Facility Type: Industrial
Facility Standard Industrial Classification (SIC) Code and Activity:
4512 Air Transportation, Scheduled
4513 Air Courier Services
4522 Air Transportation, Nonscheduled
4581 Airports, Flying Fields and Airport Terminal Services

# **Facility Description:**

This permit authorizes stormwater discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

# Changes:

- Definitions have been added to the applicability section of this permit for clarity.
- The Electronic Discharge Monitoring Report (eDMR) requirement has been added to the permit and will be used to submit DMRs and annual report.
- A new effluent limit has been added for Chloride.
- Annual reporting has been moved from October 31<sup>st</sup> to January 28<sup>th</sup> to bring this permit into line with other general permits.

# PART II - RECEIVING STREAM INFORMATION

# APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Effluent Limitations section. This permit applies to facilities discharging to the following water body categories:

Missouri or Mississippi River [10 CSR 20-7.015(2)]:	
Lake or Reservoir [10 CSR 20-7.015(3)]:	$\times$
Losing [10 CSR 20-7.015(4)]:	$\boxtimes$
Metropolitan No-Discharge [10 CSR 20-7.015(5)]:	
Special Stream [10 CSR 20-7.015(6)]:	$\boxtimes$
Subsurface Water [10 CSR 20-7.015(7)]:	$\boxtimes$
All Other Waters [10 CSR 20-7.015(8)]:	$\times$

Missouri Water Quality Standards (10 CSR 20-7.031) defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses". The receiving stream and/or 1<sup>st</sup> classified receiving stream's beneficial water uses shall be maintained in accordance with 10 CSR 20-7.031(4). The effluent limits established by this permit are intended to be protective of all streams that fall within the categories of receiving water bodies indicated above. A general permit does not take into consideration site-specific conditions.

# MIXING CONSIDERATIONS:

This permit applies to receiving streams of varying low flow conditions. Therefore, the effluent limitations must be based on the smallest low flow streams considered, which includes waters without designated uses. As such, no mixing is allowed.

	Not Applicable:	Mixing Zone [10 CSR 20-7.031(5)(A)4.B.(I)(a)]	
$\boxtimes$	Not Applicable:	Zone of Initial Dilution [10 CSR 20-7.031(5)(A)4.B.(I)(b	]

# RECEIVING STREAM MONITORING REQUIREMENTS:

Not Applicable: No receiving water monitoring requirements recommended at this time.

# Part III - Rationale and Derivation of Effluent Limitations & Permit Conditions

# 303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the Federal CWA requires that each state identify waters that are not meeting Water Quality Standards and for which adequate water pollution controls have not been required. Water Quality Standards protect such beneficial uses of water as whole body contact, maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation. For facilities with an existing general permit before a TMDL is written on their receiving stream, the Department will evaluate the permit and may require any facility authorized by this general permit to apply for and obtain a site specific operating permit. For facilities requesting a new general permit that are located within the watershed of an impaired water as designated on the 305(b) Report will be evaluated on a case-by-case basis for inclusion under this permit.

Conditional: The Department will review all discharges to 303(d) listed streams on a case by case basis.

## **ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d) (4); CWA §402(c); 40 CFR 122.44(I)] that requires a reissued general operating permit to be as stringent as the previous general operating permit with some exceptions.

Not Applicable: All requirements and limitations in this stormwater permit are at least as protective as those previously established.

#### ANTIDEGRADATION:

Antidegradation policies ensure protection of water quality for a particular water body on a pollutant by pollutant basis to ensure Water Quality Standards are maintained to support beneficial uses such as fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as an Outstanding National Resource Water or Outstanding State Resource Water [10 CSR 20-7.031(3)(C)]. Antidegradation policies are adopted to minimize adverse effects on water. The Department has determined that the best avenue forward for implementing the Antidegradation requirements into general permits is by requiring the appropriate development and maintenance of a SWPPP. The SWPPP must identify all Best Management Practices (BMPs) that are reasonable and effective, taking into account environmental impacts and costs. This analysis must document why no discharge or no exposure options are not feasible at the facility. This selection and documentation of appropriate control measures will then serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.

Any facility seeking coverage under this permit, which undergoes expansion or discharges a new pollutant of concern, must update their SWPPP and select new BMPs that are reasonable and cost effective. New facilities seeking coverage under this permit are required to develop a SWPPP that includes this analysis and documentation of appropriate BMPs. Renewal of coverage for a facility requires a review of the SWPPP to assure that the selected BMPs continue to be appropriate.

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Applicable: The pollutants of concern in this permit are chemical oxygen demand, biochemical oxygen demand, pH, total suspended solids, ethylbenzene, oil and grease, ammonia as nitrogen, and chloride. Compliance with the effluent limitations established in this permit, along with the evaluation and implementation of BMPs as documented in the SWPPP, meets the requirements of Missouri's Antidegradation Review [10 CSR 20-7.031(3), 10 CSR 20-7.031 Table A, and 10 CSR 20-7.015(9)(A)5].

### BENCHMARKS:

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When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The Technical Support Document for Water Quality Based Toxics Control (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum daily limit (MDL) or benchmark, determined by the site specific conditions including the receiving water's current quality.

Numeric benchmark values are based on water quality standards or other stormwater permits including the Environmental Protection Agency's (EPA's) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

Not Applicable: This facility has stormwater-only outfalls with effluent limitations and does not contain benchmarks. The effluent limitations listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs and is deemed protective of instream water quality and aquatic life.

# PUBLIC NOTICE OF COVERAGE FOR AN INDIVIDUAL FACILITY:

Public Notice of reissuance of coverage is not required unless the facility has been found to be in significant noncompliance [10 CSR 20-6.020(1)(C)4.]. The need for an individual public notification process shall be determined and identified in the permit [10 CSR 20-6.020(1)(C)5.]. Newly permitted facilities require public notice before the permit is issued.

Applicable: Issuance of coverage to individual airports covered under this permit for the first time shall be placed on Public Notice for thirty (30) days in accordance with 10 CSR 20-6.020(1)(B) & (C)2.

## REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation 40 CFR Part 122.44(d)(1)(i) requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with 40 CFR Part 122.44(d)(iii) if the permit writer determines that any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the water quality standard, the permit must contain effluent limits for that pollutant.

- Conservative assumption: A traditional statistical Reasonable Potential Analysis has not been conducted for this master general permit; but instead the Department has made a reasonable potential determination based on sources of pollutants related to water quality standards. Activities performed by facilities covered under this master general permit were evaluated as to whether discharges have reasonable potential to cause or contribute to excursions of general criteria listed in 10 CSR 20-7.031(4). A reasonable potential to violate water quality standards is assumed for the pollutants of concern due to the nature of the activities carried out under this permit, resulting in the effluent limits contained in the permit.
- (a) Water Quality Standards. To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria. Each general criterion below was assessed in relation to activities carried out by facilities covered under this permit and numeric limits assigned for criteria where there was a reasonable potential to cause or contribute to an excursion above narrative or numeric water quality standards.
- (b) General Criteria. The following general water quality criteria are applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
    - a. The Department has determined that there is reasonable potential for equipment cleaning activities covered under this general permit to cause the formation of putrescent, unsightly or harmful bottom deposits in waters of the state. This has been addressed by assigning an effluent limit for Total Suspended Solids and by requiring a SWPPP to address stormwater runoff. The Department has determined that the limit and BMP implementation for this pollutant are sufficient to protect water quality standard general criteria.
  - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
    - a. The Department has determined that there is reasonable potential for equipment maintenance, lubrication and fueling activities exposed to stormwater and covered under this general permit to cause oil, scum or floating debris in waters of the state. This has been addressed by assigning limits for Oil and Grease and Ethylbenzene, narrative conditions prohibiting the discharge of waters with a visible sheen, and by requiring a SWPPP to address stormwater runoff. The Department has determined that the limits and BMP implementation for these pollutants are sufficient to protect water quality standard general criteria.
  - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
    - a. The Department has determined that there is reasonable potential for equipment washing, vehicle rehabilitation and deicing activities covered under this general permit to cause unsightly color and/or turbidity in waters of the state. This has been addressed by assigning effluent limits for Total Suspended Solids, Nitrate, and Ammonia as Nitrogen and by requiring a SWPPP to address stormwater runoff. The Department has determined that the effluent limitations and BMP implementation for this pollutant are sufficient to protect water quality standards general criteria.

- (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
  - a. The Department has determined that there is a reasonable potential for equipment deicing, anti-icing, and fueling activities covered under this permit to contribute to toxicity to human, animal or aquatic life. This has been addressed by assigning effluent limitations for BOD<sub>5</sub>, COD, pH, Oil and Grease, Chloride, Ammonia as Nitrogen, Nitrate, and Ethylbenzene, and by requiring a SWPPP to address stormwater runoff. The Department has determined that the effluent limitations and BMP implementation for these pollutants are sufficient to protect water quality standard general criteria.
- (5) There shall be no significant human health hazard from incidental contact with the water.
  - a. Based on the activities carried out by the facilities under this general permit, the Department has determined there is no reasonable potential for contaminates to cause a significant health hazard from incidental contact with the water.
- (6) There shall be no acute toxicity to livestock or wildlife watering.
  - a. The Department has determined that there is reasonable potential for equipment fueling, repair, lubrication, and deicing activities covered under this general permit to cause acute toxicity to livestock or wildlife watering. This has been addressed by assigning effluent limits for Ethylbenzene and by requiring a SWPPP to address stormwater runoff. The Department has determined that compliance with the effluent limitation values and BMP implementation for these pollutants are sufficient to protect water quality standard general criteria.
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
  - a. The Department has determined that there is a reasonable potential for activities covered under this permit to contribute to physical, chemical or hydrologic changes that would impair the natural biologic communities within waters of the state. This has been addressed by assigning effluent limitations for BOD<sub>5</sub>, COD, pH, Oil and Grease, Chloride, Ammonia as Nitrogen, Nitrate, and Ethylbenzene, and by requiring a SWPPP to address stormwater runoff. The Department has determined that compliance with the effluent limitations and BMP implementation for these pollutants are sufficient to protect water quality standard general criteria.
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
  - Based on the activities carried out by the facilities under this general permit, the Department has determined there is no reasonable potential for the deposition of used tires, car bodies, appliances, demolition debris, used vehicles or equipment or solid waste into waters of the state other than what is addressed by the implementation of a SWPPP for the facility.

# SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Not Applicable: This permit does not contain a Schedule of Compliance.

### SETBACKS:

Setbacks are common elements of general permits and are established to provide a margin of safety in order to protect the receiving water from accidents, spills, unusual events, etc. Per 10 CSR 20-7.015(6)(B) and 7.031(3)(C) Outstanding National and State Resource Waters are protected against any degradation in water quality, so stricter setbacks apply in these watersheds. Larger setbacks are also applied to biocriteria reference locations, and streams lakes or reservoirs with the designated use of drinking water supply or identified as critical habitat for endangered species.

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### SPILL REPORTING:

Any emergency involving a hazardous substance must be reported to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply when the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <a href="http://dnr.mo.gov/env/esp/spillbill.htm">http://dnr.mo.gov/env/esp/spillbill.htm</a>.

### STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when:

- (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities;
- (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges;
- (3) Numeric effluent limitations are infeasible; or
- (4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the *Developing Your Stormwater Pollution Prevention Plan, a Guide for Industrial Operators*, (EPA 833-B-09-002) published by the United States Environmental Protection Agency (EPA) in June 2015 (<a href="https://www.epa.gov/npdes/industrial-stormwater-guidance">https://www.epa.gov/npdes/industrial-stormwater-guidance</a>), BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as needing better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate pollution of stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure that will assist in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed, the facility will employ the control measures that have been determined to be adequate to achieve the benchmark values or effluent limitations discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value or effluent limit, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

If failures continue to occur and the permittee feels there are no practicable or cost-effective BMPs that will sufficiently reduce a pollutant concentration in the discharge to the benchmark value or effluent limit established in the permit, the permittee can submit a request to re-evaluate the values. This request needs to include:

- (1) A detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values or limits;
- (2) Financial data of the company and documentation of cost associated with BMPs for review; and
- (3) The SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information.

This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: <a href="http://dnr.mo.gov/forms/index.html">http://dnr.mo.gov/forms/index.html</a>.

Applicable: A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

### VARIANCE:

Per the Missouri Clean Water Law Section 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law Section 644.006 to 644.141 or any standard, rule, or regulation promulgated pursuant to Missouri Clean Water Law Section 644.006 to 644.141.

Not Applicable: This permit is not drafted under premises of a petition for variance.

# WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

Per 10 CSR 20-2.010(78), the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable: Wasteload Allocations include an allowance for mixing. No mixing is allowed under general permits, so Water Quality Standards are used in place of Wasteload Allocation.

# WATER QUALITY STANDARDS:

Per 10 CSR 20-7.031(4), General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

# WHOLE EFFLUENT TOXICITY (WET) TEST:

Per 10 CSR 20-7.031(1)(FF), a toxicity test conducted under specified laboratory conditions on specific indicator organism; and per 40 CFR Section 122.2, the aggregate toxic effect of an effluent measured directly by a toxicity test. A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with, or through synergistic responses when mixed with receiving stream water.

Not Applicable: At this time, the facility is not required to conduct a WET test.

# Part IV - Effluent Limitation Determination

#### **EFFLUENT LIMITATIONS TABLE:**

EFFECENT EMITTATIONS TABLE		T	-	ı			
PARAMETER	Unit	Basis for Limits	Daily Maximum	WEEKLY AVERAGE	MONTHLY AVERAGE	Modified	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	*
РН (S.U.)	SU	2, 3	6.5 – 9		6.5-9	NO	6.5-9.0
TOTAL SUSPENDED SOLIDS	MG/L	2,8	70		70	NO	70/70
ETHYLBENZENE	MG/L	2, 3	0.32		0.32	NO	0.32/0.32
Oil & Grease (mg/L)	MG/L	2,3	15		10	NO	15/10
CHEMICAL OXYGEN DEMAND	MG/L	3,8	120		90	NO	120/90
BIOCHEMICAL OXYGEN DEMAND5	MG/L	3,8	90		60	NO	90/60
CHLORIDE	MG/L	2, 8	860		860	YES	NOT PREVIOUSLY LIMITED
AMMONIA AS N FOR > 1,000 JET DEPARTURES ANNUALLY	MG/L	1	14.7		14.7	YES	*
AMMONIA AS N FOR < 1,000 JET DEPARTURES ANNUALLY	MG/L	1,8	*		*	МО	*
NITRATE	MG/L	2,8	*		*	NO	*

<sup>\*</sup>monitoring requirement only

Basis for Limitations Codes:

- 1. State or Federal Regulation/Law
- 2. Water Quality Standard
- 3. Water Quality Based Effluent Limits
- 4. Lagoon Policy
- 5. Ammonia Policy

- 6. Antidegradation Policy
- 7. Water Quality Model
- 8. Best Professional Judgement
- 9. TMDL or Permit in lieu of TMDL
- 10. WET test Policy

### **DERIVATION AND DISCUSSION OF EFFLUENT LIMITATIONS:**

The CWA requires that all NPDES discharges to Waters of the U. S. contain technology-based or water quality-based effluent limitations, whichever is more stringent. When the EPA has not established industry specific technology based Effluent Limitation Guidelines, Missouri uses EPA's *Technical Support Document for Water Quality Based Toxics Control* (TSD) method for calculating site-specific water-quality based effluent limitations. The TSD method is based on assumptions and statistics that apply to continuous discharges, not intermittent stormwater discharges and thus may not apply to this permit. In that case, it is the Department's policy to consult the EPAs Effluent Limits Guidelines or other applicable documents or guidance.

- <u>pH</u>: In accordance with 10 CSR 20-7.031(5)(E) effluent limits are established to meet water quality standards. The state water quality standard for pH is 6.5-9.0 SU. In accordance with the Clean Water Act section 301(b)(1)(C), the more stringent standard must be applied to the permit. There are no TBELs for this industry. Therefore, the state water quality standard 6.5-9.0 SU will be carried over from the previous permit and implemented in this permit.
- <u>Total Suspended Solids (TSS)</u>: Effluent limits for each type of receiving water body were set according to 10 CSR 20-6.200 and are considered necessary for protection of Water Quality Standards 10 CSR 20-7.031(4). The Department has retained the previous effluent limit of 70 mg/L in this permit for all SIC codes. This is a technology based limit and is deemed to be achievable using best available technology. The Department has determined that these values are protective of state general criteria cited above and technologically achievable.
- <u>Ethylbenzene</u>: The previous permit effluent limit of 0.32 mg/L, based on water quality standards for protection of aquatic life, was retained in this permit. Based on the water quality standards in 10 CSR 20-7.031 Table A, the Department has determined that this value is protective of state general criteria cited above and technologically achievable.

- <u>Oil & Grease</u>: This permit has water quality based effluent limit of 10 mg/L for the protection of aquatic life per 10 CSR 20-7.031. Oil and Grease is a conventional pollutant, in accordance with 10 CSR 20-7.031 Table A: Criteria for Designated Uses; 10 mg/L monthly average (chronic standard). The existing effluent limit was carried over from the previous permit.
- <u>Chemical Oxygen Demand</u>: Effluent limits carried over from previous permit to protect for the General Criteria in the Water Quality Standard. The Department has determined that these values are protective of state general criteria and technologically achievable.
- <u>Nitrate</u>: Monitoring only requirement was carried over from previous permit. This parameter is monitored because of the deicing chemicals used at some airports with contain nitrate which can cause undesirable conditions in receiving streams. This parameter may be reevaluated in subsequent permit cycles depending on data received during this permit cycle's directed monitoring.
- <u>Biochemical Oxygen Demand</u><sub>5</sub>: Effluent limits carried over from previous permit to protect for the General Criteria in the Water Quality Standard. The Department has determined that these values are protective of state general criteria and technologically achievable.
- Ammonia as N: An effluent limit is set because deicing chemicals containing urea have been demonstrated to have toxic impacts to receiving streams<sup>2</sup>. Per Effluent Limit Guidelines in 40 CFR 449.10, all airports with greater than or equal to 1,000 jet (non-propeller aircraft) departures must either use only non-urea-containing deicers OR they must meet the effluent limit of 14.7 mg/L. An analysis of available data demonstrates that in the past, airports under this general permit discharged well below the water quality based effluent limit of 12.1 mg/L (results range from 0.015 mg/L to 10 mg/L, average of 0.3 mg/L, n = 173 samples). In the previous permit cycle, annual reporting was due in October and consequently most monitoring was conducted in September. This makes extrapolation of the available data to evaluate effluent values during the winter season difficult at best. Because of limitations that exist with the available data, the Department intends to reevaluate this limitation in subsequent permit cycles to determine the appropriateness of water quality based limits for this parameter. For these reasons and in light of the fact that stormwater discharges are short term and intermittent, the Department has made the reasonable potential determination that the technology based limit representing the degree of effluent reduction available by the application of best available technology, along with the evaluation and implementation of BMPs as documented in the SWPPP, is appropriate at this time.
- <u>Chloride</u>: Chlorides found in some deicing chemicals authorized in this permit and can be harmful to aquatic life. The previous permit required monitoring only. An effluent limitation of 860 mg/L has been added to protect water quality. The acute water quality standard for protection of aquatic life is applied directly because the discharge only occurs during ice or snowmelt.

<sup>&</sup>lt;sup>2</sup> Corsi, S., Booth, N., Hall, D. USGS <u>Aircraft and runway deicers at General Mitchell International Airport, Milwaukee, Wisconsin, USA. 1. Biochemical Oxygen Demand and Dissolved Oxygen in receiving streams</u>. Environmental Toxicology and Chemistry, Vol. 20, No. 7, pp. 1474-1482, 2001.

### PART V - ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

#### PUBLIC MEETING:

A public meeting was held at the May 4, 2017 Clean Water Forum in Jefferson City, Missouri.

#### PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

The Public Notice period for this operating permit was from August 24, 2017 to September 25, 2017.

Two comments were received and are summarized below:

### Comment 1:

Requirements – Item 11 (page 5 of 9): This requirement addresses reportable releases of hazardous substances. Facilities are already regulated under 24-3.010 to report hazardous substances. If the Department keeps this requirement in the permit, I request that it be written to have records of reports "readily available" versus "retained with the SWPPP".

### Response 1:

Requirement 11 requiring that a record of the release of hazardous substance/spill to be retained with the Stormwater Pollution Prevention Plan (SWPPP) and made available upon request is essentially the same conditions that you requested in your comment. The requirement is to keep those records with the SWPPP not be incorporated into the SWPPP. The Department will clarify the intent of the requirement.

### Comment 2:

In addition to the above comment, I request that the records, including the spill reports and SWPPP, may be retained electronically.

### Response 2:

The Department agrees with this request and has added language to the permit requirements indicating that the SWPPP and hazardous substance release/spill records may be kept in an electronic format so long as they are readily available to facility staff and the Department upon request.

DATE OF FACTSHEET: AUGUST 17, 2017

SUSAN J. HIGGINS
ENVIRONMENTAL SPECIALIST III
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION
573-526-1002
Susan.Higgins@dnr.mo.gov

## Jefferson City Cooper Drive Armory #MO-R80F026





Outfall 001 and 002 (PD and AR): Landgrant 2638, Callaway County UTM Coordinates: X=574085 Y=4271840 First receiving stream: Tributary to Niemans Creek (U)

1st Class: 8-20-13 MUDD V1.0 (C) (3960)

Huc 12: (10300102-1305)

0 0.5 1 2 Miles



### STANDARD CONDITIONS FOR NPDES PERMITS ISSUED BY

## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

### Part I – General Conditions Section A – Sampling, Monitoring, and Recording

### 1. Sampling Requirements.

- Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

### 2. Monitoring Requirements.

- a. Records of monitoring information shall include:
  - The date, exact place, and time of sampling or measurements;
  - ii. The individual(s) who performed the sampling or measurements;
  - iii. The date(s) analyses were performed;
  - iv. The individual(s) who performed the analyses;
  - v. The analytical techniques or methods used; and
  - vi. The results of such analyses.
- b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
- Sample and Monitoring Calculations, Calculations for all sample and
  monitoring results which require averaging of measurements shall utilize an
  arithmetic mean unless otherwise specified in the permit.
- Test Procedures. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently
- 5. Record Retention. Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

#### Illegal Activities.

- a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
- b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

### Section B – Reporting Requirements

### . Planned Changes.

- a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
  - The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
  - The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1);
  - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
  - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

### Non-compliance Reporting.

a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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### REVISED AUGUST 1, 2014

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
  - Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - ii. Any upset which exceeds any effluent limitation in the permit.
  - Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
- c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
- Anticipated Noncompliance. The permittee shall give advance notice to the
  Department of any planned changes in the permitted facility or activity
  which may result in noncompliance with permit requirements. The notice
  shall be submitted to the Department 60 days prior to such changes or
  activity.
- 4. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
- 5. Other Noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
- 6. Other Information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

### 7. Discharge Monitoring Reports.

- Monitoring results shall be reported at the intervals specified in the permit.
- b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
- Monitoring results shall be reported to the Department no later than the 28<sup>th</sup> day of the month following the end of the reporting period.

### Section C – Bypass/Upset Requirements

#### 1. Definitions.

- a. Bypass: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
- b. Severe Property Damage: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- c. Upset: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

### 2. Bypass Requirements.

Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

#### b. Notice

- Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
- ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).

### Prohibition of bypass.

- i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
  - Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - The permittee submitted notices as required under paragraph 2.
     b. of this section.
- ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

#### Upset Requirements.

- a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - An upset occurred and that the permittee can identify the cause(s) of the upset;
  - ii. The permitted facility was at the time being properly operated; and
  - iii. The permittee submitted notice of the upset as required in Section B Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
  - iv. The permittee complied with any remedial measures required under Section D - Administrative Requirements, paragraph 4.
- c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

### Section D – Administrative Requirements

- Duty to Comply. The permittee must comply with all conditions of this
  permit. Any permit noncompliance constitutes a violation of the Missouri
  Clean Water Law and Federal Clean Water Act and is grounds for
  enforcement action; for permit termination, revocation and reissuance, or
  modification; or denial of a permit renewal application.
  - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
  - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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AUGUST 1, 2014

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class II penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644,006 to 644,141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644,006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644,006 to 644,141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both, Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

### 2. Duty to Reapply.

- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission

- for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- Need to Halt or Reduce Activity Not a Defense. It shall not be a defense
  for a permittee in an enforcement action that it would have been necessary to
  halt or reduce the permitted activity in order to maintain compliance with the
  conditions of this permit.
- Duty to Mitigate. The permittee shall take all reasonable steps to minimize
  or prevent any discharge or sludge use or disposal in violation of this permit
  which has a reasonable likelihood of adversely affecting human health or the
  environment.
- 5. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

#### 6. Permit Actions.

- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
  - i. Violations of any terms or conditions of this permit or the law;
  - Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
  - A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
  - iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

### 7. Permit Transfer,

- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
- 8. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

### STANDARD CONDITIONS FOR NPDES PERMITS ISSUED BY

# THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED AUGUST 1, 2014

- 10. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
- 11. Inspection and Entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
  - Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

### 12. Closure of Treatment Facilities.

- Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
- b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

### 13. Signatory Requirement.

- All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
- b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
- c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
- 14. Severability. The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

APPENDIX B

Site Figures



### **UNCLASSIFIED**

### **JEFFERSON CITY COOPER DRIVE ARMORY**



**OUTFALL** 









Installation Boundary

Minor Stream

Missouri River

lary

MISSOURI ARMY NATIONAL GUARD
ENVIRONMENTAL MANAGEMENT OFFICE
6819B North Boundary Road
Jefferson City, MO 65101-1207
ELIPSOID
GRIDUNIT
PROJECTION TRANSVERSE MERCETOR
VERTICAL DATUM.
MENAS LEVEL
VERTICAL DATUM.
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(Printed Scale: 1:30,000)

THE MOARNG IS NOT LIABLE FOR NOR GUARANTEES
THE ACCURACY OF THIS DATA. THE INFORMATION
CONTAINED IN THIS MAP WAS PRODUCED FOR GENERAL
REFERENCE AND WAS DERIVED FROM TABULAR DATA,
AUTOCAD FILES, HISTORICAL RECORDS, LEGAL PROPERTY
DESCRIPTIONS, AND SURVEYS. INCONSISTENCIES
BETWEEN DATASETS ARE PRESENT.



### APPENDIX C

SWPPP Routine Requirement Logs

Deicing Chemical Use Log  Jefferson City AASF				
DATE	OATE INITIALS Chemical Name-code Pounds Us			

### **Deicing Chemicals-Code**

Ammonium Nitrate- AN Anhydrous Ammonium- AA Other- Specify in log

SWPPP Monthly Inspection Checklist					
Facility Name					
Inspector's Name					
Inspector's Signature					
Date of Inspection		1	T	Г	1
Requirer	ment/BMP	Yes	No*	N/A	Corrective Action
<b>Preventive Maintenan</b>	ce				
Is the deicing chemical Is debris collecting arou Oil/Water separator in	und storm water and/or				
Does the Oil/Water September Contain excessive sludge	parator(s) and wash rack ge or sediment?				
Good Housekeeping					
Washing of vehicles or helicopters is occurring at the designated wash rack(s)?					
Are applicable products being recycled (cardboard, paper, scrap metal)?					
Are solid waste dumps	ters kept closed?				
Liquids are not dispose	d in dumpsters?				
Is deicer and herbicide minimum amount poss	usage being kept to the sible?				
Spill Prevention and Ro	esponse				
Are fuel deliveries mon	itored?				
Evidence of spills or leastains on concrete) is n	aks (stressed vegetation, ot present?				
Are spill kits readily avaspill areas?	ailable near potential				
Are the spill supplies in condition?	good working				
Fuel from preflight che containers?	cks is captured in				

Requirement/BMP	Yes	No	N/A	Corrective Action
Materials Management				
Are materials (drums, equipment, scrap metal) stored indoors or under covered areas to the maximum extent practicable?				
Are materials stored in compatible containers and properly labeled?				
Are materials still within their "use by" date (not expired)?				
Outfalls				
Erosion or sediment deposition is not present?				
Drainage Ditches/Retention Basin				
Erosion or sediment deposition is not present?				
If vegetation is present, is it in good condition?				
Training				
Has annual environmental training occurred? If yes, list date.				

 $<sup>\</sup>ensuremath{^{*}}$  "No" denotes item that may require corrective action.

### **General Comments:**

Jefferson City AASF 225 Cooper Drive Jefferson City, MO 65101

Inquiry Number: 5722509.3

July 19, 2019

### **Certified Sanborn® Map Report**



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

### **Certified Sanborn® Map Report**

07/19/19

Site Name: Client Name:

Jefferson City AASF AECOM

225 Cooper Drive 12120 Shamrock Plaza Jefferson City, MO 65101 Omaha, NE 68154

EDR Inquiry # 5722509.3 Contact: Savannah Irving



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 # EF6B-4D1B-B8AF

PO# NA

Project Jefferson City AASF

### **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.



Certification #: EF6B-4D1B-B8AF

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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page 2

### **Jefferson City AASF**

225 Cooper Drive Jefferson City, MO 65101

Inquiry Number: 5722509.5

July 23, 2019

### The EDR Aerial Photo Decade Package



### **EDR Aerial Photo Decade Package**

07/23/19

Site Name: Client Name:

Jefferson City AASF AECOM

225 Cooper Drive 12120 Shamrock Plaza

Jefferson City, MO 65101 Omaha, NE 68154

EDR Inquiry # 5722509.5 Contact: Savannah Irving



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.

### 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
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1995	1"=500'	Acquisition Date: April 13, 1995	USGS/DOQQ
1986	1"=500'	Flight Date: March 22, 1986	USDA
1974	1"=750'	Flight Date: March 26, 1974	USGS
1972	1"=750'	Flight Date: September 11, 1972	USGS
1965	1"=500'	Flight Date: April 07, 1965	USGS
1956	1"=1000'	Flight Date: March 08, 1956	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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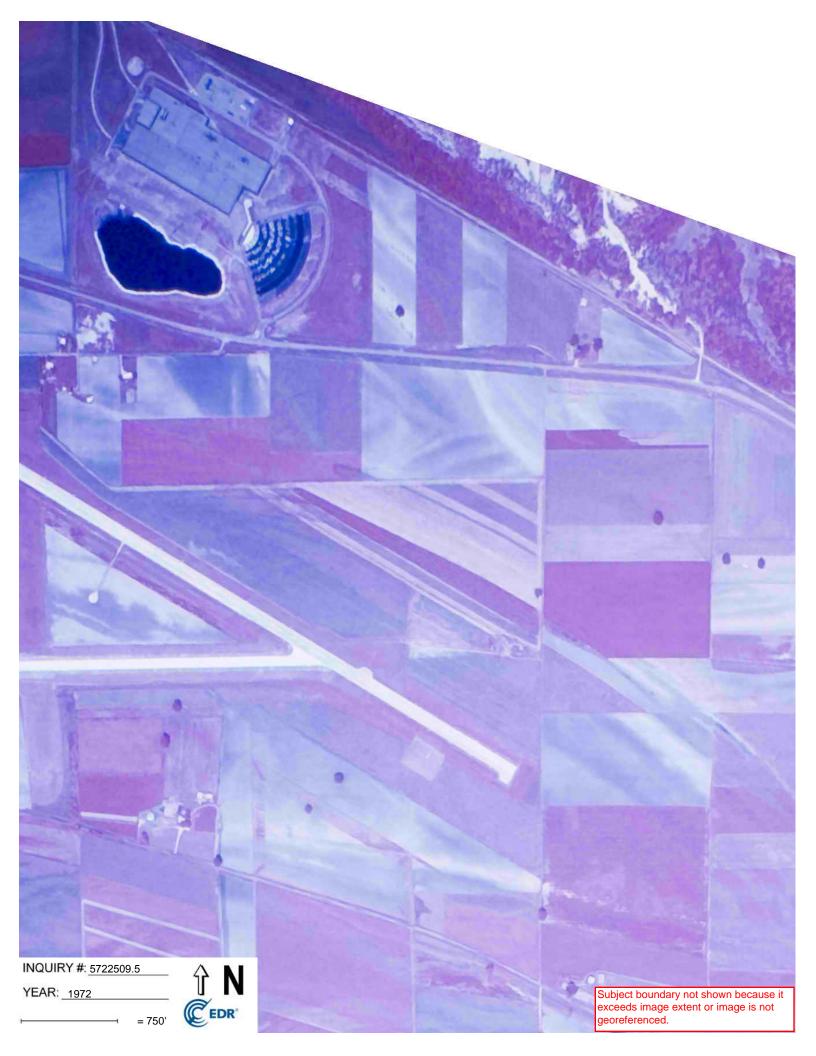
















**Jefferson City AASF** 

225 Cooper Drive Jefferson City, MO 65101

Inquiry Number: 5722509.2s

July 22, 2019

### 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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Thank you for your business.
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with any questions or comments.

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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**

225 COOPER DRIVE JEFFERSON CITY, MO 65101

### **COORDINATES**

Latitude (North): 38.5931060 - 38° 35' 35.18" Longitude (West): 92.1504490 - 92° 9' 1.61"

Universal Tranverse Mercator: Zone 15 UTM X (Meters): 573986.1 UTM Y (Meters): 4271760.0

Elevation: 542 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 6723211 JEFFERSON CITY, MO

Version Date: 2015

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140709 Source: USDA

### MAPPED SITES SUMMARY

Target Property Address: 225 COOPER DRIVE JEFFERSON CITY, MO 65043

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	JEFFERSON CITY COOPE	1225 COOPER DR MEMOR	RCRA-CESQG		TP
A2	P#1660-12, MISSOURI	1225 COOPER DRIVE	ASBESTOS		TP
A3	JEFFERSON CITY COOPE	1225 COOPER DR	NPDES		TP
A4	JEFFERSON CITY COOPE	1225 COOPER DR	FINDS, ECHO		TP
A5	ARMY AVIATION SUPPOR	MEMORIAL AIRPORT	LUST, UST	Higher	1 ft.
B6	ABB POWER	500 WEST HIGHWAY 94	SPILLS, NPDES, SMARS	Higher	1069, 0.202, NW
B7	LAUF EQUIPMENT CO IN	500 WEHMEYER DR	RCRA NonGen / NLR	Higher	1234, 0.234, NW
8	ABB INC	500 W HWY 94	RCRA-LQG, TRIS, PADS	Higher	1235, 0.234, NW
9	MEMORIAL AIRPORT	MISSOURI AVIATION HA	LUST, UST	Higher	1467, 0.278, West

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
JEFFERSON CITY COOPE 1225 COOPER DR MEMOR JEFFERSON CITY, MO 65101	RCRA-CESQG EPA ID:: MOD985773431	MOD985773431
P#1660-12, MISSOURI 1225 COOPER DRIVE JEFFERSON CITY, MO 65101	ASBESTOS	N/A
JEFFERSON CITY COOPE 1225 COOPER DR JEFFERSON CITY, MO 65109	NPDES Permit Status: Effective Permit Number: MOR80F026	N/A
JEFFERSON CITY COOPE 1225 COOPER DR JEFFERSON CITY, MO 65109	FINDS Registry ID:: 110006731554  ECHO Registry ID: 110006731554	N/A

### **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

NPL	National Priority List
	Proposed National Priority List Sites
NPL LIENS	

### 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-SQG..... RCRA - Small Quantity Generators Federal institutional controls / engineering controls registries .....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 CERCLIS State and tribal landfill and/or solid waste disposal site lists SWF/LF..... Permitted Facility List State and tribal leaking storage tank lists LAST..... Leaking Aboveground Storage Tanks INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land State and tribal registered storage tank lists FEMA UST..... Underground Storage Tank Listing State and tribal institutional control / engineering control registries AUL\_\_\_\_\_Sites with Controls State and tribal voluntary cleanup sites VCP...... Voluntary Cleanup Program Site Listing INDIAN VCP..... Voluntary Cleanup Priority Listing

### State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Site List

### ADDITIONAL ENVIRONMENTAL RECORDS

### Local Brownfield lists

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

### Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF..... Solid Waste Facility Database List SWRCY..... Solid Waste Recycling Facilities

INDIAN ODI...... Report on the Status of Open Dumps on Indian Lands DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations

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 CDL..... Environmental Emergency Response System DEL SHWS...... Registry Sites Withdrawn or Deleted

US CDL...... National Clandestine Laboratory Register

### Local Land Records

LIENS 2..... CERCLA Lien Information

### Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System SPILLS..... Environmental Response Tracking Database SPILLS 90...... SPILLS 90 data from FirstSearch

### Other Ascertainable Records

FUDS..... Formerly Used Defense Sites DOD...... Department of Defense Sites

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

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

2020 COR ACTION...... 2020 Corrective Action Program List

SSTS..... Section 7 Tracking Systems ROD...... Records Of Decision RMP...... Risk Management Plans

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

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

ICIS...... Integrated Compliance Information System

Act)/TSCA (Toxic Substances Control Act)

MLTS...... Material Licensing Tracking System COAL ASH DOE...... Steam-Electric Plant Operation Data

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

DOCKET HWC..... Hazardous Waste Compliance Docket Listing

UXO...... Unexploded Ordnance Sites

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

MO RRC..... Certified Hazardous Waste Resource Recovery Facilities

UIC...... Underground Injection Wells Database

### **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 HWS	Recovered Government Archive State Hazardous Waste Facilities List
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

### Federal RCRA generators list

RCRA-LQG: 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.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ABB INC	500 W HWY 94	NW 1/8 - 1/4 (0.234 mi.)	8	19
EPA ID:: MOD075892646				

### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks.

A review of the LUST list, as provided by EDR, and dated 03/07/2019 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ARMY AVIATION SUPPOR Facility Id: ST0012316	MEMORIAL AIRPORT	0 - 1/8 (0.000 mi.)	A5	12
MEMORIAL AIRPORT Facility Id: ST0001718	MISSOURI AVIATION HA	W 1/4 - 1/2 (0.278 mi.)	9	33

### State and tribal registered storage tank lists

UST: Underground Storage Tank Information.

A review of the UST list, as provided by EDR, and dated 03/07/2019 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	<b>Direction / Distance</b>	Map ID	Page
ARMY AVIATION SUPPOR	MEMORIAL AIRPORT	0 - 1/8 (0.000 mi.)	A5	12
Facility Id: ST0012316 Tank Status: Removed				

### **EXECUTIVE SUMMARY**

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Other Ascertainable Records

RCRA NonGen / NLR: 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.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/25/2019 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LAUF EQUIPMENT CO IN	500 WEHMEYER DR	NW 1/8 - 1/4 (0.234 mi.)	B7	18
FPA ID:: MOD985810639				

SMARS: SMARS currently houses information for Superfund, Federal Facility, Brownfields Voluntary Cleanup Program and Missouri's other state response programs.

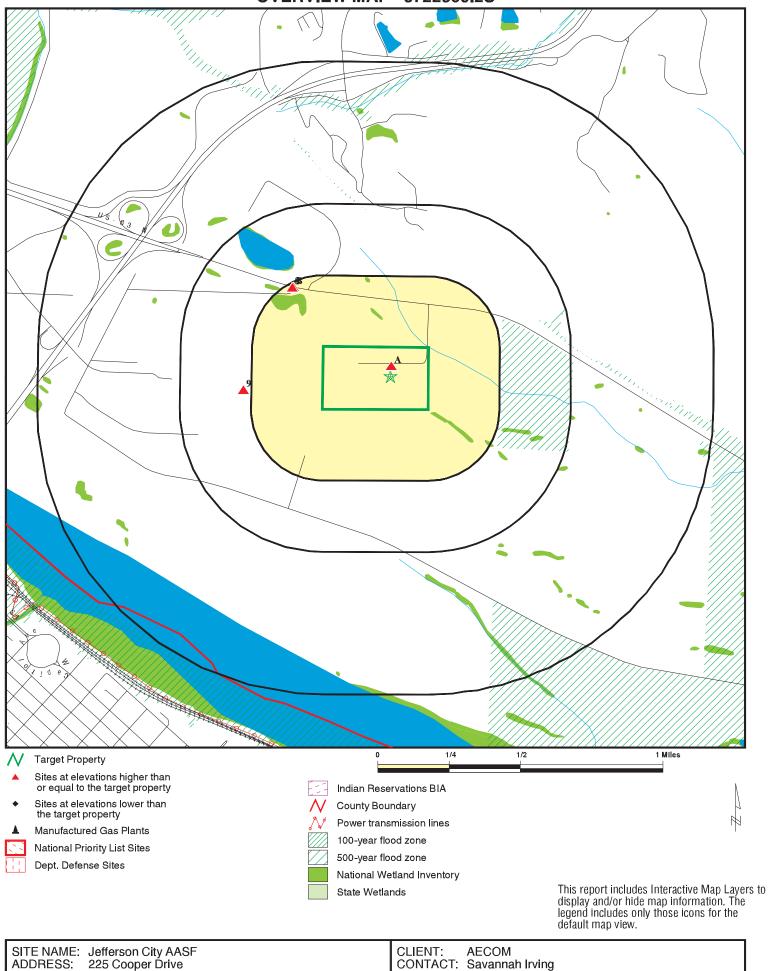
A review of the SMARS list, as provided by EDR, and dated 04/02/2019 has revealed that there is 1 SMARS site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ABB POWER	500 WEST HIGHWAY 94	NW 1/8 - 1/4 (0.202 mi.)	B6	17

# **EXECUTIVE SUMMARY**

There were no unmapped sites in this report.

### **OVERVIEW MAP - 5722509.2S**



Jefferson City MO 65101

38.593106 / 92.150449

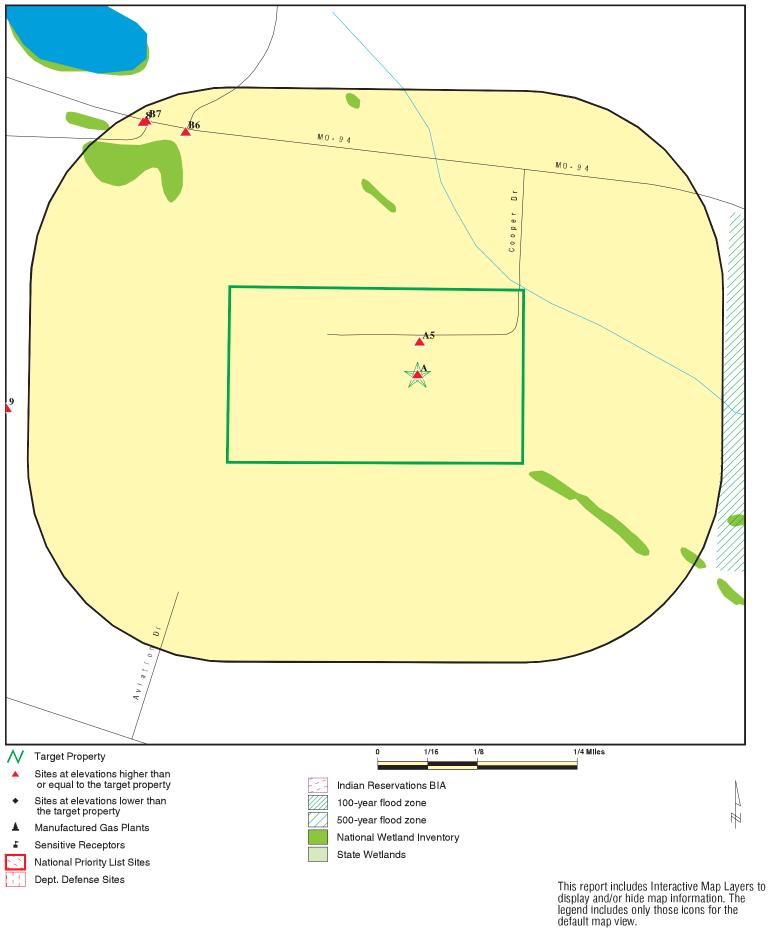
LAT/LONG:

July 22, 2019 1:08 pm Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

INQUIRY#: 5722509.2s

DATE:

### **DETAIL MAP - 5722509.2S**



SITE NAME:

ADDRESS:

LAT/LONG:

Jefferson City AASF

38.593106 / 92.150449

225 Cooper Drive Jefferson City MO 65101

July 22, 2019 1:11 pm Copyright © 2019 EDR, Inc. © 2015 TomTom Rel. 2015.

**AECOM** 

CONTACT: Savannah Irving

INQUIRY #: 5722509.2s

CLIENT:

DATE:

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL sit	te 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 NFRA	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 f	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	1	0 0 0	1 0 0	NR NR NR	NR NR NR	NR NR NR	1 0 1
Federal institutional cor engineering controls re								
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	alent CERCLIS	6						
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking	storage tank l	ists						
LAST LUST INDIAN LUST	0.500 0.500 0.500		0 1 0	0 0 0	0 1 0	NR NR NR	NR NR NR	0 2 0
State and tribal registere	ed storage tar	nk lists						
FEMA UST	0.250		0	0	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
UST AST INDIAN UST	0.250 0.250 0.250		1 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	1 0 0
State and tribal institutio control / engineering cor		<b>S</b>						
AUL	0.500		0	0	0	NR	NR	0
State and tribal voluntary	/ cleanup site	s						
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfie	lds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORDS							
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	Solid							
HIST LF SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste /							
US HIST CDL CDL DEL SHWS US CDL	TP TP 1.000 TP		NR NR 0 NR	NR NR 0 NR	NR NR 0 NR	NR NR 0 NR	NR NR NR NR	0 0 0 0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS SPILLS SPILLS 90	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR FUDS DOD SCRD DRYCLEANERS US FIN ASSUR	0.250 1.000 1.000 0.500 TP		0 0 0 0 NR	1 0 0 0 NR	NR 0 0 0 NR	NR 0 0 NR NR	NR NR NR NR NR	1 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
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 DOCKET HWC UXO ECHO FUELS PROGRAM AIRS ASBESTOS COAL ASH DRYCLEANERS	TP 0.250 TP TP TP 1.000 TP	Property  1 1 1	NO R R R O R R R R R R O R R R R R O O O O R R O O R R O R O R R O R R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R R O R O R O R R O R O R R O R O R R O R	NO RRR O RRR NR	RR RR O RR RR O RR RR O O O O O RR RR RR	RRRRRORRRRRRRRRRRROOORRRRRRRRRRRRRRRRR		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Financial Assurance MINES NPDES MO RRC SMARS UIC	TP 0.250 TP TP 0.500 TP	1	NR 0 NR NR 0 NR	NR 0 NR NR 1 NR	NR NR NR NR 0 NR	NR NR NR NR NR	NR NR NR NR NR NR	0 0 1 0 1 0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP EDR Hist Auto EDR Hist Cleaner	1.000 0.125 0.125		0 0 0	0 NR NR	0 NR NR	0 NR NR	NR NR NR	0 0 0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Go			N.E.					•
RGA HWS	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
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals		5	2	3	1	0	0	11

### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Direction Distance

Elevation Site Database(s) EPA ID Number

A1 JEFFERSON CITY COOPER DRIVE ARMORY RCRA-CESQG 1000439562
Target 1225 COOPER DR MEMORIAL AIRPOR MOD985773431

Property JEFFERSON CITY, MO 65101

Site 1 of 5 in cluster A

Actual: RCRA-CESQG:

**542 ft.** Date form received by agency: 07/15/2014

Facility name: JEFFERSON CITY COOPER DRIVE ARMORY Facility address: 1225 COOPER DR MEMORIAL AIRPOR

JEFFERSON CITY, MO 65101

EPA ID: MOD985773431

Mailing address: 6819 B N BOUNDARY RD

JEFFERSON CITY, MO 65101-1207

Contact: STANLEY THESSEN
Contact address: 6819 B N BOUNDARY RD

JEFFERSON CITY, MO 65101-1207

Contact country: US

Contact telephone: 573-638-9500

Telephone ext.: 9813

Contact email: STANLEY.J.THESSEN,.NFG@MAIL.MIL

EPA Region: 07 Land type: State

Classification: Conditionally Exempt Small Quantity Generator

Description: Handler: generates 100 kg or less of hazardous waste per calendar

month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from

the cleanup of a spill, into or on any land or water, of acutely

hazardous waste

Owner/Operator Summary:

Owner/operator name: MISSOURI ARMY NATIONAL GUARD

Owner/operator address: 2302 MILITIA DR

JEFFERSON CITY, MO 65101

Owner/operator country: US

Owner/operator telephone: 573-638-9500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Operator

Owner/Operator Type: Operator
Owner/Op start date: 05/09/2014
Owner/Op end date: Not reported

Owner/operator name: MISSOURI ARMY NATIONAL GUARD

Owner/operator address: 2302 MILITIA DR

JEFFERSON CITY, MO 65101

Owner/operator country: US

Owner/operator telephone: 573-638-9500 Owner/operator email: Not reported

Direction Distance Elevation

ation Site Database(s) EPA ID Number

#### JEFFERSON CITY COOPER DRIVE ARMORY (Continued)

1000439562

**EDR ID Number** 

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 05/09/2014
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: Nο Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Historical Generators:

Date form received by agency: 07/15/2014

Site name: JEFFERSON CITY COOPER DRIVE ARMORY
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 05/13/2014

Site name: JEFFERSON CITY COOPER DRIVE ARMORY

Classification: Large Quantity Generator

Date form received by agency: 05/09/2014

Site name: JEFFERSON CITY COOPER DRIVE ARMORY

Classification: Large Quantity Generator

Date form received by agency: 12/02/2008

Site name: JEFFERSON CITY AASF

Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 10/21/2008

Site name: JEFFERSON CITY AASF Classification: Large Quantity Generator

Date form received by agency: 03/22/2001

Site name: ARMY AVIATION SUPPORT FACILITY
Classification: Conditionally Exempt Small Quantity Generator

Date form received by agency: 09/11/1995

Site name: ARMY AVIATION SUPPORT FACILITY

Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001

Direction Distance

Elevation **EPA ID Number** Site Database(s)

#### **JEFFERSON CITY COOPER DRIVE ARMORY (Continued)**

1000439562

**EDR ID Number** 

Waste name: **IGNITABLE WASTE** 

D018 Waste code: Waste name: **BENZENE** 

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE,

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F003

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Waste code: P106

SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN) Waste name:

Waste code:

Waste name: 2-PROPENENITRILE (OR) ACRYLONITRILE

Violation Status: No violations found

**Evaluation Action Summary:** 

Evaluation date: 07/23/2014

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Not reported Date achieved compliance: Not reported Evaluation lead agency: State

A2 P#1660-12, MISSOURI NATIONAL GUARD, AIRPORT HANGAR **ASBESTOS S122838460** 

N/A

1225 COOPER DRIVE **Target Property JEFFERSON CITY, MO 65101** 

Site 2 of 5 in cluster A

Actual: ASBESTOS:

542 ft.

Permit Number: 2398 Paid: Not reported Not reported

Postmark/Email Date: Operation Type:

Contractor Name: Asbestos Removal Services, Inc.

Regional Office: Not reported Owner: Not reported Owner Address: Not reported

Direction Distance

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

#### P#1660-12, MISSOURI NATIONAL GUARD, AIRPORT HANGAR (Continued)

S122838460

Owner City: Not reported Owner State: Not reported Not reported Owner Zip: Square Feet: Not reported Linear Feet: Not reported Cubic Feet: Not reported

1050sf n-f VCT & mastic Asbestos Type:

Present Use: Not reported Prior Use: Not reported Start Date: 10/31/2016 11/02/2016 End Date: Post Date: Not reported Start Time: Not reported End Time: Not reported Disposal Site: Not reported Contact Person: Warren Prost Review Date: Not reported Post Complete: Not reported Contractor Phone: (573) 896-0222 Contractor Registration Number: Not reported 10/28/2016 Notification Date: Inspection Date: Not reported Inspection Invoice: Not reported Demo Date Recieved: Not reported Asbestos Quantity:

Not reported Total Days: Not reported Receive Date: Not reported Invoice Date: Not reported Project Type: Not reported Not reported Comments: Amendments: Not reported

Fiel Name: Asbestos\_Courtesy\_Notifications

Latitude: Not reported Longitude: Not reported

**A3** JEFFERSON CITY COOPER DRIVE ARMORY

**Target** 1225 COOPER DR

**Property JEFFERSON CITY, MO 65109**  NPDES S107853310 N/A

#### Site 3 of 5 in cluster A

Actual: NPDES: 542 ft.

Permit Number: MOR80F026 Permit Status: Effective SIC: 4581

> AIRPORTS, FLYING FIELDS, AND SERVICES SIC Description:

01/01/2018 Issue Date: Effective Date: 01/01/2018 Category Description: Not reported Treatment Type Description: Storm Water Facility Telephone: 5736591400

Owner Name: NGMO EM MISSOURI ARMY NATIONAL GUARD

Owner Address: 6819B N BOUNDARY RD

Owner Address 2: Not reported Owner City: JEFFERSON CITY

Owner State: MO Owner Zip: 65101 Permit Type 100: Not reported

Direction Distance

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

#### **JEFFERSON CITY COOPER DRIVE ARMORY (Continued)**

S107853310

Major 10: Not reported Region 10: Not reported Issuing Authority 10: Not reported Permit Action 100: Not reported Date Notification 25: Not reported Region Decode: Not reported Iss Auth Decode: Not reported

**JEFFERSON CITY COOPER DRIVE ARMORY** Α4

**FINDS** 1005543840 **ECHO** N/A

Target 1225 COOPER DR

**Property JEFFERSON CITY, MO 65109** 

FINDS:

Site 4 of 5 in cluster A

Actual: 542 ft.

110006731554 Registry ID:

Environmental Interest/Information System

The MO-DNR (Missouri Department of Natural Resources) program involves a Resource Assessment and Monitoring Program, biological criteria development, monitoring of targeted sites to determine compliance with the designated use of aquatic life protection in the standards, monitoring for 303(3) purposes, and the development of a stream classification framework.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1005543840 Registry ID: 110006731554

DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006731554

**ARMY AVIATION SUPPORT FACILITY** LUST U001159517 **MEMORIAL AIRPORT** UST N/A

< 1/8 **JEFFERSON CITY, MO 65101** 

1 ft.

543 ft.

Α5

Site 5 of 5 in cluster A

Relative: LUST:

Higher Facility ID: ST0012316

Region: NE - Northeast Regional Office Actual:

Lat/Long (dms): 38 36 37 / 92 9 2 Spill Number: Not reported Release Date: 03/26/1992

Direction Distance

Elevation Site Database(s) EPA ID Number

#### ARMY AVIATION SUPPORT FACILITY (Continued)

U001159517

**EDR ID Number** 

Release Type: UNDERGROUND STORAGE TANK

Date Cleanup Started: 12/08/1994
Date Cleanup Finished: 03/03/1995
Expedited: No
Expedited Date: Not reported

Expenditures From The American Recovery and Reinvestment Act of 2009No

Reopened Date: Not reported

Number Of Remediation Monitoring Wells: 0
Active: No

Date Of NFA Letter From DNR: Not reported Date Record Meets Archive Criteria: Not reported R003112 Remediation ID: Rank: Not reported Emergeny Response Date: Not reported **Emergency Cleanup Start:** Not reported Referred To DGLS for Investigation: Not reported Contractor Performing Clean Up: Not reported

RBCA NFA: No Project Manager: L

Next Correspondence/Update With Fac:
Date Added:
Date Record Edited:
Person Adding Or Editing Record:
Facility Sent To State Archive:
Date Remediation Unit Closed The File:
Not reported
Yes
Not reported
Yes

Site Affectd By Funding Level From PSTIF: No

General Comments: 3-3-95 - SJ - SITE CLOSED.

UST:

Facility ID: ST0012316 Region: NE

Easting: 573987.847 Northing: 4272032.80

Owner Of Geospatial Data: Hazardous Waste Program

 Geospatial Data Collected By:
 CARES

 Date GIS Data Collected:
 02/16/2000

 Lat/Long:
 38.5937 / -92.1504

 Lat/Long (dms):
 38 36 37 / 92 9 2

Tanks:

Owner:

Owner ID: OW10227

Owner Name: MISSOURI ARMY NATIONAL GUARD
Owner Address: 2301 MILITIA DR/NGMO-RPE
Owner City, St, Zip: JEFFERSON CITY, MO 65101 1203

Owner County Code: 51
Owner Phone: 7519694
Mail Was Not Deliverable: No
Is Owner Active?: No

Date Registration Received:

Date Record Added:

Date Record Edited:

Not reported
1995-06-30 00:00:00
1996-06-27 00:00:00

Name of Person Editing Record: Not reported

Tank ID: 1
Tank Double Wall: 0

Direction Distance Elevation

vation Site Database(s) EPA ID Number

#### ARMY AVIATION SUPPORT FACILITY (Continued)

U001159517

**EDR ID Number** 

Tank Type: Below Ground
Tank Status: Removed
Meet 98 Update Requirements: Not reported
Date Tank Installed: 01/01/1959
Tank Material: Steel
Code for Tank Material Manufacturer: Not reported
Code for Tank Installer: Not reported

Other Type Of Tank Material: Not reported Tank Internal Protection: Not reported Other Tank Internal Protection: I Lining SW1856 Not reported Tank Internal Protection Date: Not reported Tank External Protection: Not reported Other Type Tank Extrn Protec: Tank External Protec Date: Not reported 03/07/1995 Date Tank Last Used: Date Tank Permanently Closed/ Removed: 03/07/1995

Dt Tk Exp Brought InUse/Internal Tracking:

Not reported

Tank Fees Waived: No Expedite Closure On Tank?: No

Responsible Person Expediting Closure: Not reported Temporary Status Verified Date: Not reported Admin Fee 585: Not reported Date Administratively Closed: Not reported Date Record Added: 06/30/1995 Date Record Edited: 01/21/1998 Person Adding/Editing Record: **N\$ATKIG** Date Of NFA Letter: 03/07/1995 Is Tank Used For Emergency Generator: No

Parts Observed Nation Branchest Generator: No

Date Closure Notice Received: 09/27/1994

Date Of Aprroval Letter: 1995-03-07 00:00:00
Firm Closing Tank: CET ENVIRONMENTAL
Date Closure Report Received: 1995-02-01 00:00:00

Registration End Date: Not reported

LockOut Flag: No

Comments: FINAL LETTER FOR 1-16,000 JP-4. 1-16,000 GAL JP4. 400 CUBIC YDS OF

CONTAMINATED SOIL REMOVED.

Tank Compartment:

Mixture:

Tanks Use: False Compartment No: Tank Compartment PK: 30547 30547 Tank PK: Case Number: Not reported Compartment Status: Removed Compartment Temp Verified Dt: Not reported 16000 Capacity: Substance: Other Substance Other: JP4 Hazardous Substance: Not reported

Date of Last Use: 1995-03-07 00:00:00

False

Pipe Installation Date: Not reported
Pipe System: Not reported

Pipe Material: 1

Pipe Material Other: Not reported
Pipe Protection: Not reported
Pipe Protection Date: Not reported

Pipe Double Wall: 0

Direction Distance

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

#### **ARMY AVIATION SUPPORT FACILITY (Continued)**

U001159517

Spill Protection: False

Owner:

Owner ID: OW10227

MISSOURI ARMY NATIONAL GUARD Owner Name: 2301 MILITIA DR/NGMO-RPE Owner Address:

JEFFERSON CITY, MO 65101 1203 Owner City, St, Zip: Owner County Code: 51

7519694 Owner Phone: Mail Was Not Deliverable: No Is Owner Active?: No

Date Registration Received: Not reported 1995-06-30 00:00:00 Date Record Added: 1996-06-27 00:00:00 Date Record Edited:

Name of Person Editing Record: Not reported

Tank ID: 2 Tank Double Wall: 0

Tank Type: Below Ground **Tank Status:** Removed Meet 98 Update Requirements: Not reported 01/01/1983 Date Tank Installed: Tank Material: Steel Code for Tank Material Manufacturer: Not reported

Code for Tank Installer: Not reported Other Type Of Tank Material: Not reported Tank Internal Protection: Not reported I Lining SW1856 Other Tank Internal Protection: Tank Internal Protection Date: Not reported Tank External Protection: Not reported Other Type Tank Extrn Protec: Not reported Tank External Protec Date: Not reported 07/25/1994 Date Tank Last Used: Date Tank Permanently Closed/ Removed: 07/25/1994

Dt Tk Exp Brought InUse/Internal Tracking: Not reported

Tank Fees Waived: No Expedite Closure On Tank?: No

Responsible Person Expediting Closure: Not reported Temporary Status Verified Date: Not reported Admin Fee 585: Not reported Date Administratively Closed: Not reported 06/30/1995 Date Record Added: Date Record Edited: 01/21/1998 Person Adding/Editing Record: **N\$ATKIG** 

Date Of NFA Letter: 07/25/1994 Is Tank Used For Emergency Generator: No 03/16/1992 Date Closure Notice Received:

Date Of Aprroval Letter: 1994-07-25 00:00:00

Firm Closing Tank: MO ARMY NATIONAL GUARD

Date Closure Report Received: 1992-09-08 00:00:00

Registration End Date: Not reported

LockOut Flag:

FINAL LETTER FOR 1-1000 GAL AVIATION GAS. Comments:

Tank Compartment:

Direction Distance Elevation

vation Site Database(s) EPA ID Number

#### **ARMY AVIATION SUPPORT FACILITY (Continued)**

U001159517

**EDR ID Number** 

Tanks Use: False Compartment No: Tank Compartment PK: 30548 Tank PK: 30548 Case Number: Not reported Compartment Status: Removed Not reported Compartment Temp Verified Dt: Capacity: 1000 Substance: Other Substance Other: AV GAS Hazardous Substance: Not reported Mixture: False

Date of Last Use: 1994-07-25 00:00:00

Pipe Installation Date: Not reported Pipe System: Not reported

Pipe Material: 1

Pipe Material Other: Not reported
Pipe Protection: Not reported
Pipe Protection Date: Not reported

Pipe Double Wall: 0
Spill Protection: False

Tank Aug 2011:

Facility Id: ST0012316

Tank ld: 1

Not reported Site Usage: Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Offsite Impact: Not reported Free Product: Not reported **Drinking Water:** Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No
Surface Cap: No
No Excavation: No

Facility Id: ST0012316

Tank ld: 2

Not reported Site Usage: Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Not reported Offsite Impact: Free Product: Not reported Drinking Water: Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No

Direction Distance

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

#### **ARMY AVIATION SUPPORT FACILITY (Continued)**

U001159517

**SMARS** 

Surface Cap: No No Excavation: No

**ABB POWER** SPILLS S108991491 **B6** NW **500 WEST HIGHWAY 94 NPDES** N/A

**JEFFERSON CITY, MO 65101** 1/8-1/4

0.202 mi.

1069 ft. Site 1 of 2 in cluster B

MO SPILLS: Relative:

Higher 0801251458BWH Facility ID:

Regional Office: **NERO** Actual: 549 ft. Spill Number: 0801251458BWH

Date Reported: 01/25/2008 Call Date/time: 14:58:00

Lat/Long: 38.6012802 -92.157112

UTM Zone For GPS: 15 Discovery Date: 01/25/2008 Email: False

Is This A Continuous Release To Be Monitered?: False

NPDES:

Permit Number: MOR203024 Permit Status: Effective SIC: 3612

SIC Description: TRANSFORMERS, EXCEPT ELECTRONIC

Issue Date: 10/03/2014 Effective Date: 10/03/2014 Category Description: Not reported Treatment Type Description: Storm Water Facility Telephone: 5736342111 Owner Name: ABB INC Owner Address: 500 W HWY 94 Owner Address 2: Not reported JEFFERSON CITY Owner City:

Owner State: MO Owner Zip: 65101 Permit Type 100: Not reported Major 10: Not reported Region 10: Not reported Issuing Authority 10: Not reported Permit Action 100: Not reported Not reported Date Notification 25: Not reported Region Decode: Iss Auth Decode: Not reported

SMARS:

Name: **ABB POWER** 

Address: 500 WEST HIGHWAY 94

City,State,Zip: JEFFERSON CITY, MO 65101-5032

SM Number: 11100 CERCLIS: Not reported Superfund Ownership: Superfund Ownership: Yes Voluntary Cleanup Ownership: No Federal Facilities Ownership: No Permits Ownership: No

NPL Date: Not reported

Direction Distance

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

**ABB POWER (Continued)** S108991491

Tank Site Identification #: Not reported Not reported Tank Remediation #:

Registry: No

Site Code: Not reported Other Site Code: Not reported

В7 LAUF EQUIPMENT CO INC **RCRA NonGen / NLR** 1007106843 NW **500 WEHMEYER DR** MOD985810639

1/8-1/4 **JEFFERSON CITY, MO 65102** 

0.234 mi.

1234 ft. Site 2 of 2 in cluster B Relative: RCRA NonGen / NLR:

Higher Date form received by agency: 03/05/1997

LAUF EQUIPMENT CO INC Facility name: Actual: Facility address: 500 WEHMEYER DR 551 ft.

JEFFERSON CITY, MO 65102

EPA ID: MOD985810639 Mailing address: PO BOX 514

JEFFERSON CITY, MO 65102

JAMES LAUF Contact: Contact address: 500 WEHMEYER DR

JEFFERSON CITY, MO 65102

Contact country: US

573-635-6836 Contact telephone: Not reported Contact email:

EPA Region: 07

Classification: Non-Generator

Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: HAROLD LAUF

Owner/operator address: NA

NA, MO

Owner/operator country: Not reported Owner/operator telephone: Not reported Owner/operator email: Not reported Owner/operator fax: Not reported Owner/operator extension: Not reported Legal status: Private Owner/Operator Type: Owner Owner/Op start date: Not reported Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No

Direction Distance

Elevation Site Database(s) EPA ID Number

#### LAUF EQUIPMENT CO INC (Continued)

1007106843

**EDR ID Number** 

Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Hazardous Waste Summary:

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

. Waste name: CORROSIVE WASTE

Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING:

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED

IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Violation Status: No violations found

\_\_\_\_\_

8 ABB INC RCRA-LQG 1015757769 NW 500 W HWY 94 TRIS 65101WSTNG500WE

1/8-1/4 JEFFERSON CITY, MO 65101

0.234 mi. 1235 ft.

Relative: RCRA-LQG:

Higher Date form received by agency: 05/01/2018

Actual: Facility name: ABB INC

551 ft. Facility address: 500 W HWY 94

JEFFERSON CITY, MO 65101-5032

EPA ID: MOD075892646
Contact: JON MIKISKA
Contact address: 500 W HWY 94

JEFFERSON CITY, MO 65101-5032

Contact country: US

Contact telephone: 573-634-2111

Telephone ext.: 322

Contact email: JONATHAN.MIKISKA@US.ABB.COM

EPA Region: 07 Land type: Private

Classification: Large Quantity Generator

**PADS** 

Direction Distance Elevation

EDR ID Number tion Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Description: Handler: generates 1,000 kg or more of hazardous waste during any

calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than

100 kg of that material at any time

Owner/Operator Summary:

Owner/Op end date:

Owner/operator name: ABB INC

Owner/operator address: 12040 REGENCY PKWY

CARY, NC 27518

Owner/operator country: US

Owner/operator telephone: 919-856-2260
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1990

Owner/operator name: ABB INC

Owner/operator address: 12040 REGENCY PKWY

CARY, NC 27518

Not reported

Owner/operator country: US

Owner/operator telephone: 919-856-2260 Owner/operator email: Not reported Owner/operator fax: Not reported Owner/operator extension: Not reported Legal status: Private Owner/Operator Type: Operator Owner/Op start date: 01/01/1990 Owner/Op end date: Not reported

#### Handler Activities Summary:

U.S. importer of hazardous waste: No Mixed waste (haz. and radioactive): No Recycler of hazardous waste: No Transporter of hazardous waste: No Treater, storer or disposer of HW: No Underground injection activity: No On-site burner exemption: No Furnace exemption: No Used oil fuel burner: No Used oil processor: No User oil refiner: No Used oil fuel marketer to burner: No Used oil Specification marketer: No Used oil transfer facility: No Used oil transporter: No

Direction Distance

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

**ABB INC (Continued)** 1015757769

Universal Waste Summary:

Waste type: Thermostats

Accumulated waste on-site: Yes Generated waste on-site: No

**Batteries** Waste type: Accumulated waste on-site: Yes Generated waste on-site: No

Waste type: Lamps Accumulated waste on-site: Yes Generated waste on-site: No

Waste type: Pesticides Accumulated waste on-site: Yes Generated waste on-site: No

Historical Generators:

Date form received by agency: 02/28/2018 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/13/2018 ABB INC Site name:

Classification: Large Quantity Generator

Date form received by agency: 11/06/2017 Site name: ABB INC

Large Quantity Generator Classification:

Date form received by agency: 06/30/2017 Site name:

Classification: Large Quantity Generator

Date form received by agency: 06/28/2017 ABB INC Site name:

Classification: Large Quantity Generator

Date form received by agency: 02/14/2017 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 01/28/2016 ABB INC Site name:

Classification: Large Quantity Generator

Date form received by agency: 11/19/2015 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 11/19/2015 ABB INC Site name:

Classification: Large Quantity Generator

Date form received by agency: 06/23/2015 Site name: ABB INC

Distance

Elevation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Classification: Large Quantity Generator

Date form received by agency: 05/20/2015 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 01/03/2014 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/15/2012 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 01/25/2012 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 01/15/2010 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/20/2008 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 09/11/2007 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/07/2006 Site name: A B B INC

Classification: Large Quantity Generator

Date form received by agency: 01/01/2003 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/13/2002 Site name: ABB INC

Classification: Large Quantity Generator

Date form received by agency: 02/14/2000

Site name: ABB POWER T&D CO INC Classification: Large Quantity Generator

Date form received by agency: 02/27/1998

Site name: A B B POWER T & D CO Classification: Large Quantity Generator

Date form received by agency: 02/29/1996

Site name: A B B POWER T & D CO INC Classification: Large Quantity Generator

Date form received by agency: 02/27/1996

Site name: ABB POWER T & D CO
Classification: Large Quantity Generator

Distance

Elevation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Date form received by agency: 01/20/1994

Site name: A B B POWER T & D COMPANY INCORPORATED

Classification: Large Quantity Generator

Date form received by agency: 07/29/1993

Site name: A B B POWER T & D CO INC Classification: Large Quantity Generator

Date form received by agency: 02/28/1992

Site name: ABB POWER T & D COMPANY Classification: Large Quantity Generator

Date form received by agency: 03/05/1990

Site name: WESTINGHOUSE ABB POWER T & D CO.

Classification: Large Quantity Generator

Hazardous Waste Summary:

. Waste code: D001

. Waste name: IGNITABLE WASTE

Waste code: D002

Waste name: CORROSIVE WASTE

Waste code: D003

Waste name: REACTIVE WASTE

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007

Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

. Waste code: D009 . Waste name: MERCURY

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D027

Waste name: 1,4-DICHLOROBENZENE

Waste code: D028

Waste name: 1,2-DICHLOROETHANE

. Waste code: D035

. Waste name: METHYL ETHYL KETONE

Map ID Direction Distance Elevation MAP FINDINGS

nce EDR ID Number ation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

. Waste code: D039

. Waste name: TETRACHLOROETHYLENE

. Waste code: D040

. Waste name: TRICHLORETHYLENE

. Waste code: F001

. Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE,

TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED

FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE

SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE,

METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,

 $CHLOROBENZENE,\,1,1,2\text{-}TRICHLORO\text{-}1,2,2\text{-}TRIFLUOROETHANE},$ 

ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2,  $\,$ 

TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F004, AND F005: AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

. Waste code: F003

. Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NONHALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

. Waste code: F004

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID,

AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND

SPENT SOLVENT MIXTURES.

Waste code: F005

Waste name: THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Direction Distance

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

**ABB INC (Continued)** 1015757769

Waste code: F006

WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT Waste name:

FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL: (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF

ALUMINUM.

Waste code: NONE Waste name: None

Waste code: P106

SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN) Waste name:

Waste code: U080

Waste name: METHANE, DICHLORO- (OR) METHYLENE CHLORIDE

Waste code:

Waste name: METHANOL (I) (OR) METHYL ALCOHOL (I)

Waste code: U159

2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T) Waste name:

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:

Waste code: D001

IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF Waste name:

LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT

WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Amount (Lbs): 235872

D002 Waste code:

A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS Waste name:

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE

DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Amount (Lbs): 461

Waste code: D003

Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS

> NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE

OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Amount (Lbs): 1

Waste code: D005 Map ID MAP FINDINGS Direction

Distance

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

**ABB INC (Continued)** 1015757769

Waste name: **BARIUM** Amount (Lbs): 200

Waste code: D006 Waste name: CADMIUM Amount (Lbs): 200

Waste code: D007 **CHROMIUM** Waste name:

Amount (Lbs): 700

Waste code: D008 Waste name: **LEAD** Amount (Lbs): 200

Waste code: D011 **SILVER** Waste name: Amount (Lbs): 200

Waste code: D026 **CRESOL** Waste name: Amount (Lbs): 248

Waste code:

Waste name: METHYL ETHYL KETONE

Amount (Lbs): 234672

Waste code: D039

**TETRACHLOROETHYLENE** Waste name:

Amount (Lbs): 248

Waste code: D040

TRICHLOROETHYLENE Waste name:

Amount (Lbs): 248

Waste code:

THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL Waste name:

ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL

ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT

MIXTURES.

Amount (Lbs): 234424

Waste code: F005

THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL Waste name:

KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE,

2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004: AND STILL BOTTOMS FROM THE RECOVERY OF

THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 234424

Direction Distance

Elevation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Waste code: P106

Waste name: SODIUM CYANIDE

Amount (Lbs): 1

Facility Has Received Notices of Violations: Regulation violated: Not reported

Area of violation: Generators - Pre-transport

Date violation determined: 08/05/2015
Date achieved compliance: 08/11/2015

Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 08/20/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported

Regulation violated: Not reported

Final penalty amount:

Paid penalty amount:

Area of violation: State Statute or Regulation

Not reported

Not reported

Date violation determined: 08/05/2015
Date achieved compliance: 08/05/2015
Violation lead agency: State
Enforcement action: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Enforcement lead agency: State

Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Generators - Pre-transport

Date violation determined: 08/05/2015 Date achieved compliance: 08/05/2015 Violation lead agency: State Enforcement action: Not reported 08/20/2015 Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount: Not reported Paid penalty amount: Not reported Not reported Not reported

Regulation violated: Not reported

Area of violation: Used Oil - Generators

Date violation determined: 11/09/2011
Date achieved compliance: 01/30/2012
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: 12/16/2011
Enf. disposition status: Not reported
Enf. disp. status date: Not reported

Direction Distance Elevation

on Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Universal Waste - Small Quantity Handlers

Date violation determined: 11/09/2011 Date achieved compliance: 01/30/2012 Violation lead agency: State Enforcement action: Not reported Enforcement action date: 12/16/2011 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Generators - Pre-transport

Date violation determined: 11/09/2011 01/30/2012 Date achieved compliance: Violation lead agency: State Enforcement action: Not reported 12/16/2011 Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Proposed penalty amount:
Final penalty amount:
Paid penalty amount:
Not reported
Not reported
Not reported

Regulation violated: Not reported

Area of violation: State Statute or Regulation

Date violation determined: 11/09/2011 Date achieved compliance: 01/30/2012 Violation lead agency: State Enforcement action: Not reported Enforcement action date: 12/16/2011 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Not reported Final penalty amount:

Regulation violated: Not reported

Paid penalty amount:

Area of violation: State Statute or Regulation

Not reported

08/29/2007 Date violation determined: Date achieved compliance: 10/09/2007 Violation lead agency: State Enforcement action: Not reported Enforcement action date: 09/10/2007 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State

Direction Distance Elevation

Site Database(s) **EPA ID Number** 

**ABB INC (Continued)** 1015757769

Proposed penalty amount: Not reported Not reported Final penalty amount: Paid penalty amount: Not reported

Regulation violated: Not reported

Used Oil - Generators Area of violation:

Date violation determined: 08/29/2007 Date achieved compliance: 10/09/2007 Violation lead agency: State Enforcement action: Not reported 09/10/2007 Enforcement action date: Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Generators - Pre-transport

Date violation determined: 08/29/2007 Date achieved compliance: 10/09/2007 Violation lead agency: State Enforcement action: Not reported Enforcement action date: 09/10/2007 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Not reported

Regulation violated: SR - C01

Paid penalty amount:

Area of violation: Generators - Pre-transport

Date violation determined: 03/07/2001 Date achieved compliance: 04/18/2001 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - B14

Area of violation: Generators - Pre-transport

Date violation determined: 03/07/2001 Date achieved compliance: 04/18/2001 Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported

Map ID MAP FINDINGS Direction

Distance

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

**ABB INC (Continued)** 1015757769

Final penalty amount: Not reported Paid penalty amount: Not reported

SR - F09 Regulation violated:

Area of violation: Generators - Manifest

Date violation determined: 03/07/2001 Date achieved compliance: 04/18/2001 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - 105

Area of violation: Generators - Pre-transport

Date violation determined: 03/07/2001 Date achieved compliance: 04/18/2001 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - J04

Area of violation: Generators - General

Date violation determined: 03/07/2001 04/18/2001 Date achieved compliance: Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Proposed penalty amount: Not reported Final penalty amount: Not reported Paid penalty amount: Not reported

Regulation violated: SR - B01

Area of violation: Generators - Pre-transport

Date violation determined: 03/07/2001 Date achieved compliance: 04/18/2001 Violation lead agency: State

WRITTEN INFORMAL Enforcement action:

Enforcement action date: 03/29/2001 Enf. disposition status: Not reported Enf. disp. status date: Not reported Enforcement lead agency: State Not reported Proposed penalty amount: Final penalty amount: Not reported

Direction Distance

Elevation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Paid penalty amount: Not reported

Regulation violated:
Area of violation:

Date violation determined:
Date achieved compliance:
Violation lead agency:

Not reported
LDR - General
06/20/1990
08/08/1990
State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 07/13/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

Area of violation: Generators - General

Date violation determined: 06/20/1990
Date achieved compliance: 08/08/1990
Violation lead agency: State

Enforcement action: WRITTEN INFORMAL

Enforcement action date: 07/13/1990
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

**Evaluation Action Summary:** 

Evaluation date: 08/05/2015

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 08/11/2015 Evaluation lead agency: State

Evaluation date: 08/05/2015

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 08/05/2015 Evaluation lead agency: State

Evaluation date: 08/05/2015

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: State Statute or Regulation

Date achieved compliance: 08/05/2015 Evaluation lead agency: State

Evaluation date: 11/09/2011

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Used Oil - Generators

Date achieved compliance: 01/30/2012 Evaluation lead agency: State

Evaluation date: 11/09/2011

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Map ID MAP FINDINGS
Direction

Direction Distance

Elevation Site Database(s) EPA ID Number

ABB INC (Continued) 1015757769

Area of violation: Generators - Pre-transport

Date achieved compliance: 01/30/2012 Evaluation lead agency: State

Evaluation date: 11/09/2011

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Universal Waste - Small Quantity Handlers

Date achieved compliance: 01/30/2012 Evaluation lead agency: State

Evaluation date: 11/09/2011

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: State Statute or Regulation

Date achieved compliance: 01/30/2012 Evaluation lead agency: State

Evaluation date: 08/29/2007

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: State Statute or Regulation

Date achieved compliance: 10/09/2007 Evaluation lead agency: State

Evaluation date: 08/29/2007

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Used Oil - Generators

Date achieved compliance: 10/09/2007 Evaluation lead agency: State

Evaluation date: 08/29/2007

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 10/09/2007 Evaluation lead agency: State

Evaluation date: 07/10/2001

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation:
Date achieved compliance:
Evaluation lead agency:

Not reported
State

Evaluation date: 03/07/2001

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Manifest

Date achieved compliance: 04/18/2001 Evaluation lead agency: State

Evaluation date: 03/07/2001

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - General

Date achieved compliance: 04/18/2001 Evaluation lead agency: State

Evaluation date: 03/07/2001

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Area of violation: Generators - Pre-transport

Date achieved compliance: 04/18/2001 Evaluation lead agency: State

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

**ABB INC (Continued)** 1015757769

Evaluation date: 06/20/1990

COMPLIANCE EVALUATION INSPECTION ON-SITE Evaluation:

Area of violation: Generators - General

Date achieved compliance: 08/08/1990 Evaluation lead agency: State

Evaluation date: 06/20/1990

COMPLIANCE EVALUATION INSPECTION ON-SITE Evaluation:

Area of violation: LDR - General Date achieved compliance: 08/08/1990 Evaluation lead agency: State

10/29/1987 Evaluation date:

Evaluation: NON-FINANCIAL RECORD REVIEW

Area of violation: Not reported Date achieved compliance: Not reported Evaluation lead agency: **EPA** 

TRIS:

Click this hyperlink while viewing on your computer to access 7 additional US\_TRIS: record(s) in the EDR Site Report.

PADS:

EPAID: MOD075892646

ABB POWER T AND D CO Facility name: Facility Address: 500 WESTINGHOUSE DR

JEFFERSON CITY, MO 65101

Facility country: US Generator: Yes Storer: No Transporter: No Disposer: No Research facility: No Smelter: No

ABB POWER T AND D CO Facility owner name:

Not reported Contact title: **ROY LANGSTON** Contact name: Contact tel: 314-634-2111 Contact extension: Not reported Contact Email: Not reported Mailing address: PO BOX 883

JEFFERSON CITY, MO 65102

Mailing country: US Cert. date: 02/27/1990

**MEMORIAL AIRPORT** West **MISSOURI AVIATION HANGER** 1/4-1/2 **JEFFERSON CITY, MO 65101** 

0.278 mi. 1467 ft.

Relative: LUST: Higher Facility ID: ST0001718

Region: NE - Northeast Regional Office Actual:

Lat/Long (dms): Not reported 546 ft. Spill Number: Not reported 11/03/1993 Release Date:

Release Type: UNDERGROUND STORAGE TANK U003756890

N/A

LUST

UST

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

**MEMORIAL AIRPORT (Continued)** 

U003756890

**EDR ID Number** 

Date Cleanup Started: 11/16/1993 Date Cleanup Finished: 09/29/1995 Expedited: No

**Expedited Date:** Not reported

Expenditures From The American Recovery and Reinvestment Act of 2009No Reopened Date: Not reported

Number Of Remediation Monitoring Wells: 0

Active: No

Date Of NFA Letter From DNR: Not reported Date Record Meets Archive Criteria: Not reported R004409 Remediation ID: Not reported Rank: Emergeny Response Date: Not reported **Emergency Cleanup Start:** Not reported Referred To DGLS for Investigation: Not reported Contractor Performing Clean Up: Not reported

RBCA NFA: No Project Manager: L

Next Correspondence/Update With Fac: Not reported 06/30/1995 Date Added: Date Record Edited: 06/01/1998 Person Adding Or Editing Record: N\$PREWJ2 Facility Sent To State Archive: Yes

Date Remediation Unit Closed The File: Not reported

Site Affectd By Funding Level From PSTIF: No

**General Comments:** 09-29-95 - JM - SITE CLOSED

UST:

Facility ID: ST0001718 Region: NE

Easting: 573857.729 Northing: 4271976.11

Owner Of Geospatial Data: Hazardous Waste Program

Geospatial Data Collected By: **CARES** Date GIS Data Collected: 02/16/2000 Lat/Long: 38.5932 / -92.1519 Lat/Long (dms): Not reported

Tanks:

Owner:

Owner ID: OW01518

Owner Name: JEFFERSON CITY FLYING

Owner Address: **PO BOX 336** 

JEFFERSON CITY, MO 65102 Owner City, St, Zip:

Owner County Code: Not reported Owner Phone: 6365118 Mail Was Not Deliverable: No Is Owner Active?: No

Date Registration Received: Not reported 1995-06-30 00:00:00 Date Record Added: Date Record Edited: 1996-01-08 00:00:00

Name of Person Editing Record: Not reported

Tank ID: Tank Double Wall:

Below Ground Tank Type:

Direction Distance

Elevation Site Database(s) EPA ID Number

MEMORIAL AIRPORT (Continued)

U003756890

Not reported

**EDR ID Number** 

Tank Status: Permanently Closed in place

Meet 98 Update Requirements: Not reported Date Tank Installed: 01/01/1971 Tank Material: Steel Code for Tank Material Manufacturer: Not reported Code for Tank Installer: Not reported Not reported Other Type Of Tank Material: Tank Internal Protection: Not reported Other Tank Internal Protection: Not reported Tank Internal Protection Date: Not reported Tank External Protection: Not reported Other Type Tank Extrn Protec: Not reported Not reported Tank External Protec Date: Date Tank Last Used: 01/01/1993 Date Tank Permanently Closed/ Removed: 10/13/1995

Dt Tk Exp Brought InUse/Internal Tracking:

Tank Fees Waived: No Expedite Closure On Tank?: No

Responsible Person Expediting Closure: Not reported Temporary Status Verified Date: Not reported Admin Fee 585: Not reported Date Administratively Closed: Not reported Date Record Added: 06/30/1995 Date Record Edited: 06/01/1998 Person Adding/Editing Record: N\$PREWJ2 Date Of NFA Letter: 10/13/1995

Is Tank Used For Emergency Generator: No Date Closure Notice Received: 09/03/1993

Date Of Aprroval Letter: 1995-10-13 00:00:00

Firm Closing Tank: CENTRAL ENVRIONMENTAL

Date Closure Report Received: 1994-01-01 00:00:00

Registration End Date: Not reported

LockOut Flag: No

Comments: Not reported

Tank Compartment:

Tanks Use: False
Compartment No: 1
Tank Compartment PK: 4287
Tank PK: 4287
Case Number: Not reported

Compartment Status: Permanently Closed in place

Compartment Temp Verified Dt: Not reported 6000 Substance: Other Substance Other: P.AV GAS Hazardous Substance: Not reported Mixture: False

Date of Last Use: 1993-01-01 00:00:00

Pipe Installation Date: Not reported Pipe System: Not reported

Pipe Material: 1

Pipe Material Other: Not reported Pipe Protection: Not reported Pipe Protection Date: Not reported

Pipe Double Wall: 0
Spill Protection: False

MAP FINDINGS Map ID

Direction Distance

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

# **MEMORIAL AIRPORT (Continued)**

U003756890

Owner:

Owner ID: OW01518

JEFFERSON CITY FLYING Owner Name:

Owner Address: **PO BOX 336** 

Owner City, St, Zip: JEFFERSON CITY, MO 65102

Owner County Code: Not reported Owner Phone: 6365118 Mail Was Not Deliverable: No Is Owner Active?: No

Date Registration Received: Not reported Date Record Added: 1995-06-30 00:00:00 1996-01-08 00:00:00 Date Record Edited:

Name of Person Editing Record: Not reported

Tank ID: 2 Tank Double Wall:

Tank Type: Below Ground

Tank Status: **Permanently Closed in place** 

Meet 98 Update Requirements: Not reported 01/01/1971 Date Tank Installed: Tank Material: Steel Code for Tank Material Manufacturer: Not reported Code for Tank Installer: Not reported Other Type Of Tank Material: Not reported Tank Internal Protection: Not reported Not reported Other Tank Internal Protection:

Tank Internal Protection Date: Not reported Tank External Protection: Not reported Other Type Tank Extrn Protec: Not reported Tank External Protec Date: Not reported Date Tank Last Used: 01/01/1993 Date Tank Permanently Closed/ Removed: 10/13/1995

Dt Tk Exp Brought InUse/Internal Tracking:

Tank Fees Waived: No Expedite Closure On Tank?: No

Responsible Person Expediting Closure: Not reported Temporary Status Verified Date: Not reported Admin Fee 585: Not reported Not reported Date Administratively Closed: Date Record Added: 06/30/1995 Date Record Edited: 06/01/1998 Person Adding/Editing Record: N\$PREWJ2 Date Of NFA Letter: 10/13/1995

Is Tank Used For Emergency Generator: No

Date Closure Notice Received: 09/03/1993

Date Of Aprroval Letter: 1995-10-13 00:00:00 CENTRAL ENVRIONMENTAL Firm Closing Tank:

Date Closure Report Received: 1994-01-01 00:00:00

Registration End Date: Not reported

LockOut Flag: No

Comments: Not reported

Tank Compartment:

Tanks Use: False Compartment No: Tank Compartment PK: 4288

Not reported

MAP FINDINGS Map ID Direction

Distance

Elevation Site Database(s) **EPA ID Number** 

# **MEMORIAL AIRPORT (Continued)**

U003756890

**EDR ID Number** 

Tank PK: 4288 Case Number: Not reported

Permanently Closed in place Compartment Status:

Compartment Temp Verified Dt: Not reported Capacity: 8000 Other Substance: Substance Other: P.AV GAS Not reported Hazardous Substance: Mixture: False

Date of Last Use: 1993-01-01 00:00:00

Pipe Installation Date: Not reported Pipe System: Not reported

Pipe Material:

Pipe Material Other: Not reported Pipe Protection: Not reported Pipe Protection Date: Not reported

Pipe Double Wall: Spill Protection: False

#### Owner:

Owner ID: OW01518

Owner Name: JEFFERSON CITY FLYING

Owner Address: PO BOX 336

Owner City,St,Zip: JEFFERSON CITY, MO 65102

Owner County Code: Not reported Owner Phone: 6365118 Mail Was Not Deliverable: No Is Owner Active?: No

Date Registration Received: Not reported

Date Record Added: 1995-06-30 00:00:00 Date Record Edited: 1996-01-08 00:00:00

Name of Person Editing Record: Not reported

Tank ID: 3 Tank Double Wall:

Meet 98 Update Requirements:

Tank Type: Below Ground

Tank Status: **Permanently Closed in place** Not reported

01/01/1971 Date Tank Installed: Tank Material: Steel Code for Tank Material Manufacturer: Not reported Code for Tank Installer: Not reported Other Type Of Tank Material: Not reported Tank Internal Protection: Not reported Other Tank Internal Protection: Not reported Tank Internal Protection Date: Not reported

Not reported Tank External Protection: Other Type Tank Extrn Protec: Not reported Tank External Protec Date: Not reported Date Tank Last Used: 01/01/1993 Date Tank Permanently Closed/ Removed: 10/13/1995

Dt Tk Exp Brought InUse/Internal Tracking: Not reported

Tank Fees Waived: No Expedite Closure On Tank?:

Responsible Person Expediting Closure: Not reported

MAP FINDINGS Map ID

Direction Distance

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

**MEMORIAL AIRPORT (Continued)** 

U003756890

Temporary Status Verified Date: Not reported Not reported Admin Fee 585: Date Administratively Closed: Not reported Date Record Added: 06/30/1995 Date Record Edited: 06/01/1998 Person Adding/Editing Record: N\$PREWJ2 10/13/1995 Date Of NFA Letter: Is Tank Used For Emergency Generator: No

Date Closure Notice Received: 09/03/1993

Date Of Aprroval Letter: 1995-10-13 00:00:00

Firm Closing Tank: CENTRAL ENVRIONMENTAL

Date Closure Report Received: 1994-01-01 00:00:00 Not reported

Registration End Date: LockOut Flag: No

Comments: Not reported

Tank Compartment:

Tanks Use: False Compartment No: Tank Compartment PK: 4289 4289 Tank PK: Case Number: Not reported

Compartment Status: Permanently Closed in place

Compartment Temp Verified Dt: Not reported Capacity: 8000 Substance: Other Substance Other: P.JET FUEL Hazardous Substance: Not reported Mixture: False

1993-01-01 00:00:00 Date of Last Use:

Pipe Installation Date: Not reported Pipe System: Not reported

Pipe Material:

Pipe Material Other: Not reported Pipe Protection: Not reported Pipe Protection Date: Not reported

Pipe Double Wall: Spill Protection: False

Owner:

Owner ID: OW01518

Owner Name: JEFFERSON CITY FLYING

Owner Address: PO BOX 336

JEFFERSON CITY, MO 65102 Owner City, St, Zip:

Owner County Code: Not reported Owner Phone: 6365118 Mail Was Not Deliverable: No Is Owner Active?: No

Date Registration Received: Not reported Date Record Added: 1995-06-30 00:00:00 Date Record Edited: 1996-01-08 00:00:00

Name of Person Editing Record: Not reported

Tank ID: 4 Tank Double Wall: 0

MAP FINDINGS Map ID

Direction Distance Elevation

**EDR ID Number** Site Database(s) **EPA ID Number** 

## **MEMORIAL AIRPORT (Continued)**

U003756890

Tank Type: Below Ground

**Permanently Closed in place Tank Status:** 

Meet 98 Update Requirements: Not reported Date Tank Installed: 01/01/1971 Tank Material: Steel Code for Tank Material Manufacturer: Not reported

Code for Tank Installer: Not reported Other Type Of Tank Material: Not reported Tank Internal Protection: Not reported Other Tank Internal Protection: Not reported Tank Internal Protection Date: Not reported Not reported Tank External Protection: Other Type Tank Extrn Protec: Not reported Tank External Protec Date: Not reported 01/01/1993 Date Tank Last Used: Date Tank Permanently Closed/ Removed: 10/13/1995

Dt Tk Exp Brought InUse/Internal Tracking: Not reported

Tank Fees Waived: No Expedite Closure On Tank?: No

Responsible Person Expediting Closure: Not reported Temporary Status Verified Date: Not reported Admin Fee 585: Not reported Date Administratively Closed: Not reported Date Record Added: 06/30/1995 Date Record Edited: 06/01/1998 Person Adding/Editing Record: N\$PREWJ2 Date Of NFA Letter: 10/13/1995

Is Tank Used For Emergency Generator: No

Date Closure Notice Received: 09/03/1993

Date Of Aprroval Letter: 1995-10-13 00:00:00 CENTRAL ENVRIONMENTAL

Firm Closing Tank:

Date Closure Report Received: 1994-01-01 00:00:00 Registration End Date: Not reported

LockOut Flag:

Comments: Not reported

Tank Compartment:

Tanks Use: False Compartment No: Tank Compartment PK: 4290 Tank PK: 4290 Case Number: Not reported

Compartment Status: Permanently Closed in place

Compartment Temp Verified Dt: Not reported Capacity: 8000 Substance: Other Substance Other: P.JET FUEL Hazardous Substance: Not reported Mixture: False

1993-01-01 00:00:00 Date of Last Use:

Pipe Installation Date: Not reported Not reported Pipe System:

Pipe Material:

Not reported Pipe Material Other: Pipe Protection: Not reported Pipe Protection Date: Not reported

Pipe Double Wall: Spill Protection: False Map ID MAP FINDINGS

Direction Distance Elevation

ration Site Database(s) EPA ID Number

# **MEMORIAL AIRPORT (Continued)**

U003756890

**EDR ID Number** 

Tank Aug 2011:

Facility Id: ST0001718

Tank ld: 1

Site Usage: Not reported Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Offsite Impact: Not reported Free Product: Not reported **Drinking Water:** Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No
Surface Cap: No
No Excavation: No

Facility Id: ST0001718

Tank Id: 2

Site Usage: Not reported Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Offsite Impact: Not reported Free Product: Not reported Drinking Water: Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No
Surface Cap: No
No Excavation: No

Facility Id: ST0001718

Tank ld: 3

Site Usage: Not reported Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Not reported Offsite Impact: Free Product: Not reported Drinking Water: Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No
Surface Cap: No
No Excavation: No

Facility Id: ST0001718

Tank Id: 4

Map ID MAP FINDINGS Direction

Distance
Elevation Site Database(s)

EDR ID Number Database(s) EPA ID Number

# **MEMORIAL AIRPORT (Continued)**

U003756890

Site Usage: Not reported Risk Type: Not reported Soil Type: Not reported GW Flow: Not reported Offsite Impact: Not reported Free Product: Not reported Drinking Water: Not reported Closed Under: Not reported

No Drinking Wells: No
No Buildings: No
Vapor Barrier: 0
St Louis Mo: No
Special Well Area: No
Surface Cap: No
No Excavation: No

Count: 0 records. ORPHAN SUMMARY

City EDR ID Site Name Site Address Zip Database(s)

NO SITES FOUND

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: 04/11/2019 Source: EPA Date Data Arrived at EDR: 04/18/2019 Telephone: N/A

Date Made Active in Reports: 05/14/2019 Last EDR Contact: 07/02/2019

Number of Days to Update: 26 Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

**NPL Site Boundaries** 

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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019

Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: EPA Telephone: N/A

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: EPA
Telephone: N/A

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 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: 04/03/2019 Date Data Arrived at EDR: 04/05/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 39

Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 07/03/2019

Next Scheduled EDR Contact: 10/14/2019 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: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of David to Undete: 35

Number of Days to Update: 35

Source: EPA Telephone: 800-424-9346 Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/28/2019 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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/28/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 913-551-7003 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 913-551-7003 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 913-551-7003 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019
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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 913-551-7003 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 02/22/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 41

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 05/10/2019

Next Scheduled EDR Contact: 08/26/2019 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: 01/31/2019 Date Data Arrived at EDR: 02/04/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019 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: 01/31/2019 Date Data Arrived at EDR: 02/04/2019 Date Made Active in Reports: 03/08/2019

Number of Days to Update: 32

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019

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: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 36

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

## State- and tribal - equivalent CERCLIS

HWS DETAIL: Registry Annual Report

Each site is described in detail in this annual report and includeds the following information: a general description of the site; a summary of any significant environmental problems at and near the site; a summary of any serious health problems in the immediate vicinity of the site; the status of any testing, monitoring or remedial actions in progress or recommended by the department.

Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 02/28/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 75

Source: Department of Natural Resources

Telephone: 573-751-3176 Last EDR Contact: 05/31/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Annually

SHWS: Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/02/2018 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 10/15/2018

Number of Days to Update: 34

Source: Department of Natural Resources

Telephone: 573-751-1990 Last EDR Contact: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Annually

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

SWF/LF: Solid Waste Facility List

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: 05/15/2018 Date Data Arrived at EDR: 07/03/2018 Date Made Active in Reports: 08/06/2018

Number of Days to Update: 34

Source: Department of Natural Resources

Telephone: 573-751-5401 Last EDR Contact: 05/13/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Varies

# State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/07/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 05/13/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-751-0135 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

LAST: Leaking Aboveground Storage Tanks
A listing of leaking aboveground storage tanks.

Date of Government Version: 03/07/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 05/13/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-751-6822 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

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

Date of Government Version: 10/17/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/10/2018 Date Data Arrived at EDR: 03/08/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 54

Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 02/19/2019 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 11/01/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 09/24/2018 Date Data Arrived at EDR: 03/12/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 50

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/13/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

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: 10/12/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

### 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: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019

Data Release Frequency: Varies

UST: Petroleum Storage Tanks

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: 03/07/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 05/13/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-751-0135 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

AST: Aboveground Petroleum Storage Tanks Registered Aboveground Storage Tanks.

Date of Government Version: 11/30/2018 Date Data Arrived at EDR: 12/04/2018 Date Made Active in Reports: 01/16/2019

Number of Days to Update: 43

Source: Department of Agriculture Telephone: 573-751-7062 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Semi-Annually

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: 11/01/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 11/07/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/16/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

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: 10/17/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/10/2018 Date Data Arrived at EDR: 03/08/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 54

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 09/24/2018 Date Data Arrived at EDR: 03/12/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 50

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/12/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 10/03/2018 Date Data Arrived at EDR: 03/07/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 55

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 Data Release Frequency: Varies

#### State and tribal institutional control / engineering control registries

AUL: Sites with Controls

Activity and use limitations include both engineering controls and institutional controls.

Date of Government Version: 04/02/2019 Date Data Arrived at EDR: 05/14/2019 Date Made Active in Reports: 07/18/2019

Number of Days to Update: 65

Source: Department of Natural Resources

Telephone: 573-751-3176 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Quarterly

#### State and tribal voluntary cleanup sites

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: 06/20/2019

Next Scheduled EDR Contact: 10/07/2019 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

VCP: Sites Participating in the Voluntary Cleanup Program Sites participating in the Voluntary Cleanup Program.

Date of Government Version: 04/02/2019 Date Data Arrived at EDR: 05/14/2019 Date Made Active in Reports: 07/18/2019

Number of Days to Update: 65

Source: Department of Natural Resources

Telephone: 573-526-8913 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Quarterly

## State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

Brownfields are sites where redevelopment and reuse is hampered by known or suspected contamination with hazardous substances. While many brownfield sites are minimally contaminated, potential environmental liability can be a problem for owners, operators, prospective buyers and financial institutions. Because of the large number of these sites, their economic impact especially in heavily industrial areas is substantial.

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/18/2019

Number of Days to Update: 65

Source: Department of Natural Resources

Telephone: 573-526-8913 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019 Data Release Frequency: Quarterly

#### 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: 12/17/2018 Date Data Arrived at EDR: 12/18/2018 Date Made Active in Reports: 01/11/2019

Number of Days to Update: 24

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 06/04/2019

Next Scheduled EDR Contact: 09/30/2019 Data Release Frequency: Semi-Annually

### Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Solid Waste Facility Database List

This database contains detailed information per site. It is no longer maintained by the Department of Natural Resources. For current information on solid waste facilities/landfills see the SWF/LF database.

Date of Government Version: 04/12/2005 Date Data Arrived at EDR: 07/19/2006 Date Made Active in Reports: 08/18/2006

Number of Days to Update: 30

Source: Department of Natural Resources

Telephone: 573-751-5401 Last EDR Contact: 01/12/2009

Next Scheduled EDR Contact: 04/13/2009 Data Release Frequency: No Update Planned

SWRCY: Solid Waste Recycling Facilities
A listing of recycling center locations.

Date of Government Version: 10/30/2018 Date Data Arrived at EDR: 11/01/2018 Date Made Active in Reports: 11/20/2018

Number of Days to Update: 19

Source: Department of Natural Resources

Telephone: 573-526-3944 Last EDR Contact: 05/28/2019

Next Scheduled EDR Contact: 09/09/2019 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: 04/26/2019

Next Scheduled EDR Contact: 08/12/2019 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: 07/19/2019

Next Scheduled EDR Contact: 11/04/2019
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: 04/23/2019

Next Scheduled EDR Contact: 08/12/2019

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: 02/24/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 50

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

CDL: Environmental Emergency Response System

Incidents reported to the Department of Natural Resources where drug lab materials were involved.

Date of Government Version: 03/08/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 05/13/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-751-3443 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

DEL SHWS: Registry Sites Withdrawn or Deleted

A list of sites that were removed from the Registry or for which Registry action was suspended due to cleanup.

Date of Government Version: 07/02/2018 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 10/15/2018

Number of Days to Update: 34

Source: Department of Natural Resources

Telephone: 573-522-3710 Last EDR Contact: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Annually

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: 02/24/2019 Date Data Arrived at EDR: 02/26/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 50

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Quarterly

### Local Land Records

#### 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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: Environmental Protection Agency Telephone: 202-564-6023

Last EDR Contact: 07/02/2019

Next Scheduled EDR Contact: 10/14/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 49

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 Data Release Frequency: Quarterly

### SPILLS: Environmental Response Tracking Database

Releases of hazardous substances reported to the department's Environmental Emergency Response (EER) section.

Date of Government Version: 03/08/2019 Date Data Arrived at EDR: 03/13/2019 Date Made Active in Reports: 05/13/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-526-3349 Last EDR Contact: 06/12/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

## SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/27/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/22/2013

Number of Days to Update: 50

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

### 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: 03/25/2019 Date Data Arrived at EDR: 03/27/2019 Date Made Active in Reports: 04/17/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 913-551-7003 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 03/07/2019 Date Data Arrived at EDR: 04/03/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 50

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019

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: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 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: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019

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: 05/13/2019

Next Scheduled EDR Contact: 08/26/2019 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: 03/25/2019 Date Data Arrived at EDR: 03/26/2019 Date Made Active in Reports: 05/07/2019

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 05/06/2019

Next Scheduled EDR Contact: 08/19/2019 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: 05/10/2019

Next Scheduled EDR Contact: 08/19/2019 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 site.

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

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 06/18/2019

Next Scheduled EDR Contact: 09/30/2019 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

Number of Days to Update: 2

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/02/2019 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

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 04/24/2019

Next Scheduled EDR Contact: 08/05/2019 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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 09/16/2019 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: 04/25/2019 Date Data Arrived at EDR: 05/02/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 21

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 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: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 08/19/2019 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: 03/20/2019 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 34

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/12/2019

Next Scheduled EDR Contact: 10/21/2019 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: 07/03/2019

Next Scheduled EDR Contact: 10/21/2019 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: No Update Planned

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

Source: EPA

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

Next Scheduled EDR Contact: 12/04/2017 Data Release Frequency: No Update Planned

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.

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: 04/22/2019

Next Scheduled EDR Contact: 08/05/2019 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: 06/07/2019

Next Scheduled EDR Contact: 09/16/2019 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: 06/07/2019

Next Scheduled EDR Contact: 09/16/2019

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: 04/26/2019

Next Scheduled EDR Contact: 08/05/2019 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: 04/02/2019 Date Data Arrived at EDR: 04/02/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 10/14/2019 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: 12/03/2018 Date Data Arrived at EDR: 01/29/2019 Date Made Active in Reports: 03/21/2019

Number of Days to Update: 51

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

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: 03/31/2019 Date Data Arrived at EDR: 04/23/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 07/08/2019

Next Scheduled EDR Contact: 10/21/2019 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: 06/26/2019

Next Scheduled EDR Contact: 10/07/2019 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: 07/10/2019

Next Scheduled EDR Contact: 10/21/2019 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: 08/08/2017 Date Data Arrived at EDR: 09/11/2018 Date Made Active in Reports: 09/14/2018

Number of Days to Update: 3

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 05/02/2019

Next Scheduled EDR Contact: 08/19/2019 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: 05/24/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Varies

### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019 Date Data Arrived at EDR: 04/18/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 26

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 07/01/2019

Next Scheduled EDR Contact: 10/14/2019 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.

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

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

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

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

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

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: 11/27/2018 Date Data Arrived at EDR: 02/27/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 05/29/2019

Next Scheduled EDR Contact: 09/09/2019 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: 05/31/2019

Next Scheduled EDR Contact: 09/09/2019 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: 05/31/2019

Next Scheduled EDR Contact: 09/09/2019 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: 03/27/2019 Date Data Arrived at EDR: 03/28/2019 Date Made Active in Reports: 05/01/2019

Number of Days to Update: 34

Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 06/19/2019

Next Scheduled EDR Contact: 09/23/2019 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: 02/15/2019 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 03/15/2019

Number of Days to Update: 10

Source: EPA

Telephone: (913) 551-7003 Last EDR Contact: 06/05/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

#### **UXO: Unexploded Ordnance Sites**

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 01/17/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 74

Source: Department of Defense Telephone: 703-704-1564 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 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: 04/07/2019 Date Data Arrived at EDR: 04/09/2019 Date Made Active in Reports: 05/23/2019

Number of Days to Update: 44

Source: Environmental Protection Agency

Telephone: 202-564-2280 Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 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: 05/31/2018 Date Data Arrived at EDR: 07/26/2018 Date Made Active in Reports: 10/05/2018

Number of Days to Update: 71

Source: Environmental Protection Agency

Telephone: 202-564-0527 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/09/2019 Data Release Frequency: Varies

## 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: 02/19/2019 Date Data Arrived at EDR: 02/21/2019 Date Made Active in Reports: 04/01/2019

Number of Days to Update: 39

Source: EPA

Telephone: 800-385-6164 Last EDR Contact: 05/21/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Quarterly

AIRS: Permit Facility Listing

A listing of Air Pollution Control Program permits.

Date of Government Version: 11/21/2018 Date Data Arrived at EDR: 12/11/2018 Date Made Active in Reports: 01/17/2019

Number of Days to Update: 37

Source: Department of Natural Resources

Telephone: 573-751-4817 Last EDR Contact: 06/14/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Varies

ASBESTOS: Asbestos Notification Listing

The department requires notification of demolitions and abatement projects involving regulated structures at least 10 working days before crews begin a project.

Date of Government Version: 04/08/2019 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/15/2019

Number of Days to Update: 35

Source: Department of Natural Resources

Telephone: 573-751-4817 Last EDR Contact: 07/09/2019

Next Scheduled EDR Contact: 10/21/2019 Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

A listing of power plants with coal ash ponds.

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

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: 573-526-1825 Last EDR Contact: 06/26/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: No Update Planned

DRYCLEANERS: Drycleaners in Missouri Listing

A listing of drycleaner facilities that are potentially eligible for reimbursement of department approved cleanup costs under the Drycleaning Environmental Response Trust Fund.

Date of Government Version: 11/30/2017 Date Data Arrived at EDR: 12/13/2017 Date Made Active in Reports: 01/18/2018

Number of Days to Update: 36

Source: Department of Natural Resources

Telephone: 573-526-8913 Last EDR Contact: 06/14/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information.

Date of Government Version: 03/11/2019 Date Data Arrived at EDR: 03/14/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 61

Source: Department of Natural Resources

Telephone: 573-751-3553 Last EDR Contact: 06/03/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Annually

Financial Assurance 2: Financial Assurance Information Listing

Financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay

Date of Government Version: 10/31/2018 Date Data Arrived at EDR: 12/07/2018 Date Made Active in Reports: 01/02/2019

Number of Days to Update: 26

Source: Department of Natural Resources

Telephone: 573-751-5401 Last EDR Contact: 06/05/2019

Next Scheduled EDR Contact: 09/16/2019 Data Release Frequency: Quarterly

#### MINES: Industrial Mineral Mines Database

This data set contains names, locations and additional data for active Industrial Mineral Mines permitted with the Missouri Department of Natural Resources, Division of Environmental Quality, Land Reclamation Program. Industrial Mineral Mines permitted are rock quarries, clay pits, sand and gravel pits, or in-stream sand and gravel operations.

Date of Government Version: 01/18/2019 Date Data Arrived at EDR: 04/17/2019 Date Made Active in Reports: 05/15/2019

Number of Days to Update: 28

Source: Department of Natural Resources

Telephone: 573-751-4041 Last EDR Contact: 07/19/2019

Next Scheduled EDR Contact: 10/28/2019 Data Release Frequency: Varies

#### NPDES: Permitted Facility Listing

A listing of permitted facilities from the Water Pollution Branch.

Date of Government Version: 04/01/2019 Date Data Arrived at EDR: 04/03/2019 Date Made Active in Reports: 05/14/2019

Number of Days to Update: 41

Source: Department of Natural Resources

Telephone: 573-751-7023 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/14/2019 Data Release Frequency: Quarterly

# RRC: Certified Hazardous Waste Resource Recovery Facilities

Facilities that take hazardous waste material, either from on-site or off-site, and make it re-usable.

Date of Government Version: 03/12/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 07/17/2019

Number of Days to Update: 77

Source: Department of Natural Resources

Telephone: 573-751-3176 Last EDR Contact: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 Data Release Frequency: Annually

### SMARS: Site Management and Reporting System

SMARS currently houses information for Superfund, Federal Facility, Brownfields Voluntary Cleanup Program and Missouri's other state response programs.

Date of Government Version: 04/02/2019 Date Data Arrived at EDR: 04/30/2019 Date Made Active in Reports: 06/25/2019

Number of Days to Update: 56

Source: Department of Natural Resources

Telephone: 573-751-3043 Last EDR Contact: 04/30/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

# UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 02/21/2019 Date Made Active in Reports: 03/14/2019

Number of Days to Update: 21

Source: Department of Natural Resources

Telephone: 573-368-2183 Last EDR Contact: 05/24/2019

Next Scheduled EDR Contact: 09/02/2019 Data Release Frequency: Semi-Annually

# **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 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 RECOVERED GOVERNMENT ARCHIVES

# Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS 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 Natural Resources in Missouri.

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 Natural Resources

Telephone: N/A

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

### 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 Natural Resources in Missouri.

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 Natural Resources

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 Natural Resources in Missouri.

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

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

Source: Department of Natural Resources

# 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: 02/11/2019 Date Data Arrived at EDR: 02/12/2019 Date Made Active in Reports: 03/04/2019

Number of Days to Update: 20

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 05/14/2019

Next Scheduled EDR Contact: 08/26/2019
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: 01/01/2019 Date Data Arrived at EDR: 05/01/2019 Date Made Active in Reports: 06/21/2019

Number of Days to Update: 51

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 05/01/2019

Next Scheduled EDR Contact: 08/12/2019 Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 10/23/2018 Date Made Active in Reports: 11/27/2018

Number of Days to Update: 35

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 07/15/2019

Next Scheduled EDR Contact: 10/28/2019 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: 05/17/2019

Next Scheduled EDR Contact: 09/02/2019 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: 06/10/2019

Next Scheduled EDR Contact: 09/23/2019 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: Licensed Child Care Facilities Source: Department of Health & Senior Services

Telephone: 573-751-2450

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: National Wetland Inventory of Missouri

Source: Department of Natural Resources

Telephone: 573-751-5110

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**

JEFFERSON CITY AASF 225 COOPER DRIVE JEFFERSON CITY, MO 65101

## TARGET PROPERTY COORDINATES

Latitude (North): 38.593106 - 38° 35' 35.18" Longitude (West): 92.150449 - 92° 9' 1.62"

Universal Tranverse Mercator: Zone 15 UTM X (Meters): 573986.1 UTM Y (Meters): 4271760.0

Elevation: 542 ft. above sea level

# **USGS TOPOGRAPHIC MAP**

Target Property Map: 6723211 JEFFERSON CITY, MO

Version Date: 2015

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 principle 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.

# **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

# **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).

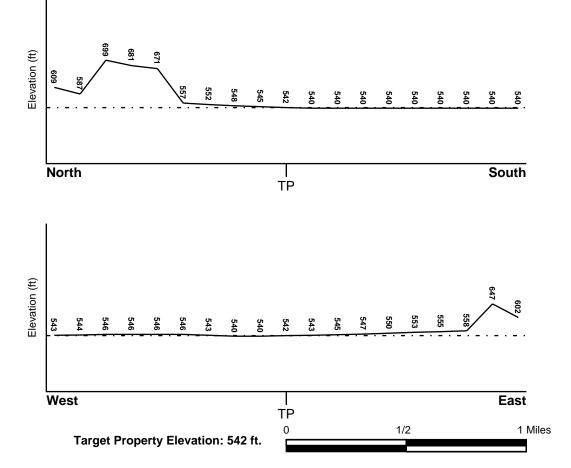
# **TOPOGRAPHIC INFORMATION**

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 SSW

#### 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.

# **GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY**

# **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

29027C0510E FEMA FIRM Flood data

Additional Panels in search area: FEMA Source Type

Not Reported

**NATIONAL WETLAND INVENTORY** 

NWI Quad at Target Property Data Coverage

JEFFERSON CITY 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: Paleozoic Category: Stratified Sequence

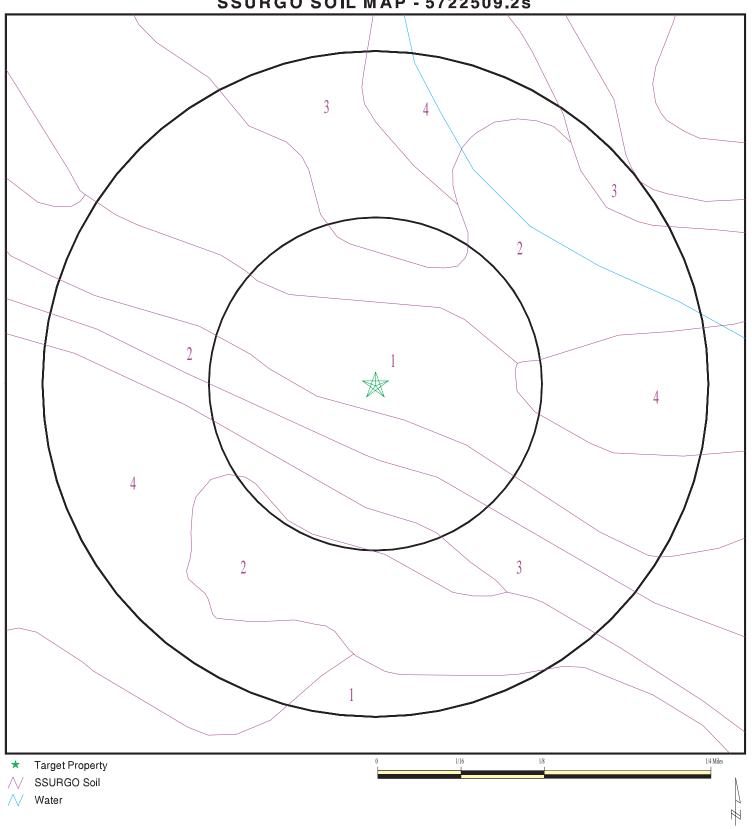
System: Ordovician

Series: Lower Ordovician (Canadian)

Code: O1b (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).

# **SSURGO SOIL MAP - 5722509.2s**



SITE NAME: Jefferson City AASF ADDRESS: 225 Cooper Drive Jefferson City MO 65101 LAT/LONG: 38.593106 / 92.150449

CLIENT: AECOM CONTACT: Savannah Irving INQUIRY#: 5722509.2s

DATE: July 22, 2019 1:12 pm

## 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. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Waldron
Soil Surface Texture: silty clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 53 inches

Soil Layer Information							
Boundary			Classi	fication	Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	11 inches	silty clay	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.4
2	11 inches	48 inches	sr to silty clay loam to silty clay	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.4
3	48 inches	74 inches	sr to very fine sandy loam to silt loam	Not reported	Not reported	Max: 14 Min: 4	Max: 8.4 Min: 7.4

### Soil Map ID: 2

Soil Component Name: Grable

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep,

moderately well and well drained soils with moderately coarse

textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
	Boundary			Classi	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	
1	0 inches	7 inches	very fine sandy loam	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.4
2	7 inches	22 inches	very fine sandy loam	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.4
3	22 inches	33 inches	loamy fine sand	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.4
4	33 inches	59 inches	sr to loamy fine sand to silt loam	Not reported	Not reported	Max: 42 Min: 14	Max: 8.4 Min: 7.4

## Soil Map ID: 3

Soil Component Name: Booker

Soil Surface Texture: silty clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 8 inches

	Soil Layer Information						
Rollndary		Saturated hydraulic					
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	5 inches	silty clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 7.3 Min: 5.6

	Soil Layer Information						
	Boundary			Classif	Classification Saturated hydraulic	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity	
2	5 inches	20 inches	silty clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 7.3 Min: 5.6
3	20 inches	74 inches	clay	Not reported	Not reported	Max: 0.42 Min: 0.01	Max: 7.3 Min: 5.6

Soil Map ID: 4

Soil Component Name: Leta

Soil Surface Texture: silty clay loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

	Soil Layer Information						
	Boundary			Classific	fication	Saturated hydraulic	
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	11 inches	silty clay loam	Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4
2	11 inches	25 inches	silty clay	Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4
3	25 inches	44 inches	sr to very fine sandy loam to silt loam	Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4
4	44 inches	72 inches	fine sand	Not reported	Not reported	Max: 141 Min: 42	Max: 8.4 Min: 7.4

## **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

MAP ID WELL ID FROM TP

A1 USGS40000694640 1/2 - 1 Mile WNW
A2 USGS40000694638 1/2 - 1 Mile WNW

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

 MAP ID
 WELL ID
 FROM TP

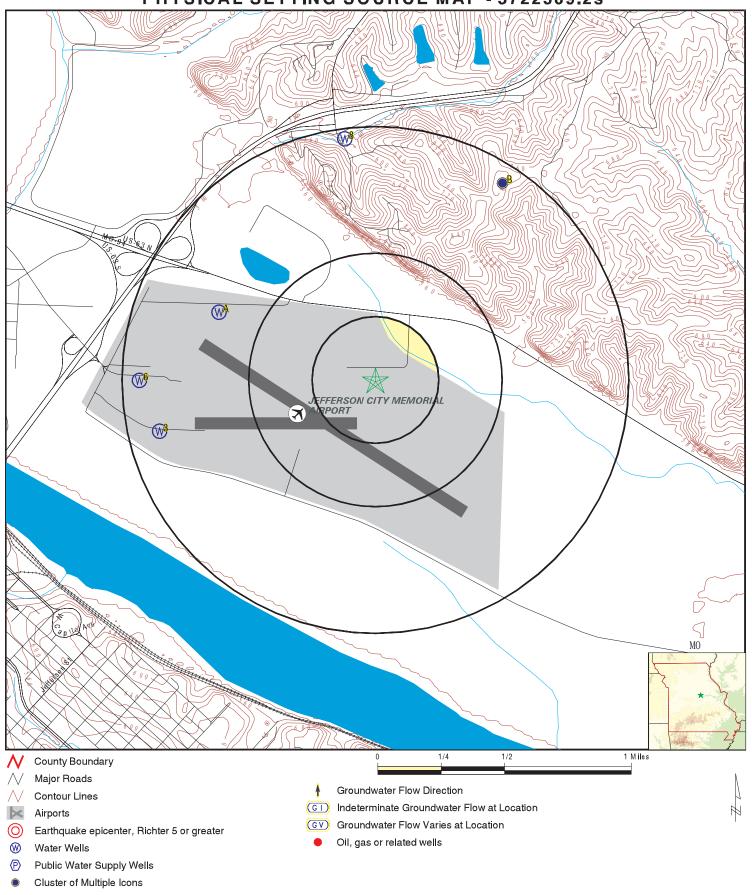
 B5
 MO3024084
 1/2 - 1 Mile NNE

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

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	MOLOG1000017882	1/2 - 1 Mile WSW
B4	MO700000004947	1/2 - 1 Mile NNE
6	MOLOG1000017915	1/2 - 1 Mile West
B7	MOLOG1000018004	1/2 - 1 Mile NNE
8	MOLOG1000018023	1/2 - 1 Mile North

# PHYSICAL SETTING SOURCE MAP - 5722509.2s



SITE NAME: Jefferson City AASF ADDRESS: 225 Cooper Drive Jefferson City MO 65101 LAT/LONG: 38.593106 / 92.150449 CLIENT: AECOM CONTACT: Savannah Irving

INQUIRY #: 5722509.2s DATE: July 22, 2019 1:11 pm

Map ID Direction Distance

Elevation EDR ID Number Database

A1 WNW 1/2 - 1 Mile Higher

**FED USGS** USGS40000694640

USGS Missouri Water Science Center

USGS40000694638

Organization ID: **USGS-MO** Monitor Location: Jefferson City Description: Not Reported Drainage Area: Not Reported Contrib Drainage Area: Not Reported Aquifer: Alluvial aquifers

HUC: Drainage Area Units: Not Reported Contrib Drainage Area Unts: Not Reported Formation Type: Holocene Alluvium Construction Date:

**FED USGS** 

Aquifer Type: Unconfined single aquifer Well Depth: 95 Well Hole Depth: 95

19560420

10300102

Well

Well Depth Units: ft Well Hole Depth Units: ft

Organization Name:

Type:

A2 WNW 1/2 - 1 Mile Higher

Organization ID: **USGS-MO** Organization Name: USGS Missouri Water Science Center

Monitor Location: T44N R11W 10CCD Type: Well HUC: 10300102 Description: Not Reported Drainage Area: Not Reported Drainage Area Units: Not Reported Contrib Drainage Area: Not Reported Contrib Drainage Area Unts: Not Reported Formation Type: Aquifer: Mississippian aquifers Not Reported Aquifer Type: Not Reported Construction Date: Not Reported Well Depth: Not Reported Well Depth Units: Not Reported Well Hole Depth Units: Well Hole Depth: Not Reported Not Reported

wsw 1/2 - 1 Mile Higher

MO WELLS MOLOG1000017882

MO700000004947

Water District

Geologic Well Log Database ID: 018963 Database: Elevation: Static Water Level: 541 0

**B4** 

NNE 1/2 - 1 Mile Higher

Well ID:

Missouri Public Drinking Water Wells Database:

14243

DGLS ID: 104785 LOGMAIN ID: 0027057

Well Certification #: Not Reported PWSS Name: Callaway Co. PWSD #1 PWSS ID: 3024084 IPWS ID: MO3024084 Well #: Westinghouse 3 Local Name:

Facility Type:

Community Federal Water System Type: Status: Active Drill Date:

1973 Abandoned:

Plugged: 0 Material Type: Consolidated Formation at Casing Depth: Formation at Total Depth: Roubidoux Potosi Total Depth: 1195 Ground Elevation: 0

**MO WELLS** 

Top Seal Type: Not Reported Bottom Seal Type: Cement Grout

Casing Depth: 500 Casing Diameter: 10 Casing Type: Steel Casing Elevation: 0 Casing Height: Outer Well Casing Depth: 0 0 Outer Casing Diameter: 0 Screen Length (ft): -9999 Screen Size (in): -9999 Depth to Static Water Level: 284 Max Yield (gal/min): 600 Dynamic Head of Pump: Drawdown: 21 Year of Pump Test: 1983

Pump Type: Vertical Turbine

Pump Manufacturer: Not Reported Pump Depth: 0 Pump Capacity: 600 Has Pump Meter: Υ Has Stand-by Power: Not Reported VOC detections: Ν Nitrates Detected: Ν Chlorination Used: Υ Filtration Used: Ν GWUDISW: Ν

Meets Construction Requirements: Y Surface Drainage: Not Reported Water System Entry Point ID: Y SWIP Wellhead Status: Verified

53 NNE FRDS PWS MO3024084 1/2 - 1 Mile Higher

Epa region: 07 State: MO

Pwsid: MO3024084 Pwsname: CALLAWAY CO PWSD 1

Cityserved: Not Reported Stateserved: Zipserved: Not Reported 29027 Fipscounty: Status: Active Retpopsrvd: 9840 Pwssvcconn: 3966 Psource longname: Groundwater **CWS** Local Govt Pwstype: Owner: Contact: LOCKE, JIM Contactorgname: LOCKE, JIM

Contactphone: 573-896-4788 Contactaddress1: 116 FRANKLIN street
Contactaddress2: PO BOX 1 Contactcity: HOLTS SUMMIT
Contactstate: MO Contactzip: 65043-0000

Pwsactivitycode: A

Pwsid: MO3024084 Facid: 103765

Facname: WELL # 7 TREATMENT Factype: Treatment\_plant Facactivitycode: A Trobjective: disinfection

Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 70774

Facname: WELL # 1 DIAMOND DR TREATMENT

Factype: Treatment\_plant Facactivitycode: A

Trtobjective: disinfection Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 70775

Facname: WELL # 2 OFFICE TREATMENT Factype: Treatment\_plant Facactivitycode: A Trtobjective: disinfection

Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 70776

Facname: WELL # 3 ABB TREATMENT Factype: Treatment\_plant Facactivitycode: A Trtobjective: disinfection

Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 70777

Facname: WELL # 4 TV STATION TREATMENT

Factype: Treatment\_plant Facactivitycode: A

Trtobjective: disinfection Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 70778

Facname: WELL # 5 SCHOOL TREATMENT Factype: Treatment\_plant

Facactivitycode: A Trtobjective: disinfection

Trtprocess: gaseous chlorination, post

Factypecode: TP

Pwsid: MO3024084 Facid: 97676

Facname: WELL # 6 DIXIE DR TREATMENT
Factype: Treatment\_plant Facactivitycode: A

Trtobjective: disinfection Trtprocess: gaseous chlorination, post

Factypecode: TP

PWS ID: MO3024084 PWS name: CALLAWAY CO PWSD #1

Address: PO BOX 1 Care of: 116 FRANKLIN

City: HOLTS SUMMIT State: MO

Zip: 65043 Owner: CALLAWAY CO PWSD #1

Source code: Ground water Population: 7000

PWS ID: MO3024084 PWS type: Not Reported PWS name: Not Reported PWS address: Not Reported PWS city: Not Reported PWS state: Not Reported PWS zip: Not Reported County: **CALLAWAY** DISINFECTION Source: Ground water Treatment Objective:

Process: GASEOUS CHLORINATION, POST

Population: 7000

PWS ID: MO3024084 Activity status: Active

Date system activated: 6801 Date system deactivated: Not Reported
Retail population: 00005600 System name: CALLAWAY CO. PWSD #1

System address: P.O. BOX 1 System address: 116 FRANKLIN

System city: HOLTS SUMMIT System state: MO

System Gity. TOETO SOMINITY System State. W

System zip: 65043

County FIPS: Not Reported City served: HOLTS SUMMIT

Population served: 5,001 - 10,000 Persons Treatment: Treated

Latitude: 383825 Longitude: 0920710

Latitude: 383957 Longitude: 0920509

Latitude: 384127 Longitude: 0920601

Latitude: 383615 Longitude: 0920827

Latitude: 383826 Longitude: 0920702

Latitude: 383953 Longitude: 0920628

State:MOLatitude degrees:38Latitude minutes:36Latitude seconds:15.0000Longitude degrees:92Longitude minutes:8

Longitude seconds: 27.0000

State:MOLatitude degrees:38Latitude minutes:38Latitude seconds:26.0000Longitude degrees:92Longitude minutes:7

Longitude seconds: 2.0000

State:MOLatitude degrees:38Latitude minutes:39Latitude seconds:53.0000Longitude degrees:92Longitude minutes:6

Longitude seconds: 28.0000

State:MOLatitude degrees:38Latitude minutes:39Latitude seconds:57.0000Longitude degrees:92Longitude minutes:5

Longitude seconds: 9.0000

State:MOLatitude degrees:38Latitude minutes:41Latitude seconds:27.0000Longitude degrees:92Longitude minutes:6

Longitude degrees: 92 Longitude seconds: 1.0000

 Violation id:
 2010415
 Orig code:
 S

 State:
 MO
 Violation Year:
 2010

Contamination code: 3100 Contamination Name: Coliform (TCR)
Violation code: 22 Violation name: MCL, Monthly (TCR)

Rule code: 110 Rule name: TCR

Violation measur:Not ReportedUnit of measure:Not ReportedState mcl:Not ReportedCmp bdt:11/01/2010

Cmp edt: 11/30/2010

Violation ID: 2010415 Orig Code: S

Enforcement FY: 2011 Enforcement Action: 08/12/2011 Enforcement Detail: St Compliance achieved Enforcement Category: Resolving

Violation ID: 2010415 Orig Code: S

Enforcement FY: 2011 Enforcement Action: 12/21/2010 Enforcement Detail: St Public Notif requested Enforcement Category: Informal

Violation ID: 2010415 Orig Code: S

Enforcemnt FY: 2011 Enforcement Action: 12/21/2010

Enforcement Detail: St Violation/Reminder Notice

Enforcement Category: Informal

Violation ID: 2010415 Orig Code: S

Enforcement FY: 2011 Enforcement Action: 01/18/2011
Enforcement Detail: St Public Notif received Enforcement Category: Informal

West MO WELLS MOLOG1000017915 1/2 - 1 Mile

Higher

Database: Geologic Well Log Database ID: 006024

Elevation: 652 Static Water Level: 0

B7
NNE MO WELLS MOLOG1000018004

1/2 - 1 Mile Higher

Database: Geologic Well Log Database ID: 027057
Elevation: 800 Static Water Level: 0

Map ID Direction

Distance Elevation Database EDR ID Number 8 North 1/2 - 1 Mile Higher MOLOG1000018023 MO WELLS

Database: Geologic Well Log Database ID: 009399 Elevation: Static Water Level: 0

## AREA RADON INFORMATION

State Database: MO Radon

Radon Test Results

Zipcode	Test Date	Result
65043	02/17/09	2.1
65043	02/17/09	4.1
65043	02/17/09	6.2
65043	02/17/09	< 0.3
65043	02/20/09	5
65043	02/20/09	< 0.3
65043	02/21/09	0.5
65043	01/09/07	9.8
65043	01/09/08	< 0.3
65043	01/28/08	1.9
65043	01/29/09	< 0.3
65043	02/04/06	4.2
65043	02/06/09	< 0.3
65043	02/07/09	0.9
65043	02/07/09	1.2
65043	02/09/06	2.2
65043	02/09/09	0.6
65043	02/13/06	0.6
65043	02/14/09	9
65043	03/31/07	1.4
65043	02/28/08	0.7
65043	03/02/09	< 0.3
65043	08/11/08	1.2
65043	05/10/08	1.3
65043	09/20/07	11.9
65043	09/22/08	0.7
65043	10/09/06	0.8
65043	10/26/05	15.2
65043	12/10/07	2.2
65043	12/10/07	3
65043	12/13/07	2.4
65043	12/14/07	0.6

Federal EPA Radon Zone for CALLAWAY County: 2

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: 65043

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.300 pCi/L	100%	0%	0%

# 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: National Wetland Inventory of Missouri

Source: Department of Natural Resources

Telephone: 573-751-5110

## HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> 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

Missouri Public Drinking Water Wells

Source: Department of Natural Resources

Telephone: 573-526-5448

Missouri Geologic Well Log Database Source: Department of Natural Resources

Telephone: 573-526-5448

## OTHER STATE DATABASE INFORMATION

Oil and Gas Well Database

Source: Department of Natural Resources

Telephone: 573-368-2143

## **RADON**

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 - Other**

Facility: Jefferson City AASF
Interviewer:

Date/Time: 7/10/19 at 0800

Interviewee:	N	Can your name/role be used in the PA Report? Y or N			
Title: Mechani Phone Number		you recommend anyone we	can interview?		
Email:		r N			
Roles or activities with the Facility/Years working at the Facility:					
	cility, now responsible for TriMax ma	·			
releases, storage systems (as buil	ntify accidental/intentional release loc e container size (maintenance, fire tra lts), fueling stations, crash sites, pest it or waterproofing). How are materials	ining, firefighting, buildings v management, recreational, dir	with suppression ning facilities, shared with others?		
			Known Uses		
• TriMax	x Units		Use		
0	Stated that they have 3 TriMax units		Procurement		
0	concentrate, and 1 unit with soap/wa Most recent testing involved dischar		Disposition		
· ·	wash rack and then refilled with "Fi		Storage (Mixed)		
	PFAS concentrate.	(amound samios aguinment)	Storage (Solution)		
0	The refilling took place in the GSE (building and reported no spills or lea		Inventory, Off-Spec		
	outfitted with drains that go to an oi		Containment		
	to a WWTP.  stated that TriMax discharge	and testing occurs every 5			
0	years where they are fully emptied,	•	SOP on Filling		
0	Training with Trimax occurred ever		Leaking Vehicles		
	soap and water mixture TriMax.		Nozzle and Suppression System Testing		
			Dining Facilities		
			Vehicle Washing		
			Ramp Washing		
			Fuel Spill Washing and Fueling Stations		
			Chrome Plating or Waterproofing		

# **PA Interview Questionnaire - Other**

Facility: Jefferson City AASF Interviewer:

Date/Time: 7/10/10 at 0900

	Date	e/Time: 7/10/19 at 0800
Interviewee: Title: Logistics Management Officer	Can your name/role be used in the N	ne PA Report? Y or
Phone Number: Unknown	Can you recommend anyone we	can interview?
Email:	Y or N	
Roles or activities with the Facility/Years wo	rking at the Facility:	
Six years at the facility.	<b>9</b>	
Six years at the facility.		
PFAS Use: Identify accidental/intentional relea	se locations, time frame of release,	frequency of
releases, storage container size (maintenance, fi		
systems (as builts), fueling stations, crash sites, metals plating, or waterproofing). How are mate		
metals planing, or waterproofing). How are made	errans ordered parenased anspessed t	Known Uses
N. C	. 1 6 714	Use
<ul><li>No fire suppression system but had fire</li><li>Fire Truck:</li></ul>	etruck on facility	
On facility from 1985-2002		Procurement
<ul> <li>Best of his knowledge it was n</li> </ul>		Disposition
nozzle testing was conducted b	out unknown how often/when scharged at wash rack and west	Storage (Mixed)
of ramp	scharged at wash rack and west	Storage (Solution)
	that discharge to oil/water	Inventory, Off-Spec
separator then to waste	ewater treatment plant area- no drains, presumably runs	Containment
off in grass area	irea- no drains, presumably runs	SOP on Filling
<ul> <li>Stored in a building on the wes</li> </ul>		Leaking Vehicles
Building had drains however it lead.	t is unknown where the drains	Nozzle and
TriMax Units		Suppression System
o TriMax30s arrived in 1999		Testing
o There has been 4 units until 20	005, when an additional 4 units in aircrafts currently there are 4	Dining Facilities
units	in aircrafts currently there are 4	Vehicle Washing
		Ramp Washing
		Fuel Spill Washing and Fueling Stations
		Chrome Plating or Waterproofing

# **PA Interview Questionnaire - Other**

Facility: Jefferson City AASF Interviewer: Date/Time: 7/10/19 at 0800

Interviewee: Title: Retired		Can your name/role be used in the N	ne PA Report? Y or
Phone Number:		Can you recommend anyone we d	can interview?
Email:		Y or N	
Roles or activiti	es with the Facility/Years wor	rking at the Facility:	
Retired aircraft r	naintenance supervisor		
PFAS Use: Iden	tify accidental/intentional releas	se locations, time frame of release,	frequency of
	•	re training, firefighting, buildings v	
		pest management, recreational, din	
metals plating, o	waterproofing). How are mate	erials ordered/purchased/disposed/s	Known Uses
T: T	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 11 - 1	Use Use
• Fire Tru	ick- P4 Air Force Fire Truck (C Confirmed that the fire truck w	Oshkosh) ras never used to fight a fire since	
O	existence to his knowledge.	_	Procurement
0	Nozzle testing was conducted or	once a year, at the west ramp . It is unknown how much AFFF	Disposition
	was dispensed during testing.	. It is unknown now much Afff	Storage (Mixed)
0	Truck was cleaned at wash rack		Storage (Solution)
0	Trucks AFFF capacity was 3 50 Bulk AFFF storage was in the	0-gal tanks. mezzanine upper level of where	Inventory, Off-Spec
O	the truck was stored.	**	Containment
0	said the truck has neve	r leaked or spilled. 220 gallons of Bulk storage was	SOP on Filling
0	kept on reserve at a time.	220 gailons of bulk storage was	Leaking Vehicles
<ul> <li>TriMax</li> </ul>			Nozzle and
0	Training occurred on wash rack would empty one TriMax unit		Suppression System Testing
	would empty one Timitan unit		Dining Facilities
			Vehicle Washing
			Ramp Washing
			Fuel Spill Washing
			and Fueling Stations
			Chrome Plating or Waterproofing

Appendix B.2
Visual Site Inspection Checklists

# **Visual Site Inspection Checklist**

Names(s) of people pe	erforming VSI:			
	Recorded by:			
Α	RNG Contact:			
I	Date and Time: Jul 10, 2019 0800			
Method of visit (walking, driv	ving, adjacent): walking, driving			
Source/Release Information				
Site Name / Area Name / Unique ID:	Jefferson City AASF			
Site / Area Acreage:	17.31 acres			
Historic Site Use (Brief Description):	The original 17.31 acre property was acquired in 1975. The facility consists of a repair hangar, shops, and office area. Exterior features are vehicle parking areas, roads, aircraft parking and taxiways.			
Current Site Use (Brief Description):	The AASF supports the Missouri Army National Guard (MOARNG).			
Physical barriers or access restrictions:	Access to the area is restricted to the MOARNG.			
1. Was PFAS used (or spilled) at the site/area  1a. If yes, document h	a? Y/N  now PFAS was used and usage time (e.g., fire fighting training 2001 to 2014):			
2. Has years hear do are anto d?	I V/N I			
2. Has usage been documented?  2a. If yes, keep a record	rd (place electronic files on a disk):			
n/a				
3. What types of businesses are located near the site? <u>Industrial</u> / <u>Commercial</u> / <u>Plating</u> / <u>Waterproofing</u> / <u>Residential</u> 3a. Indicate what businesses are located near the site				
4. Is this site located at an airport/flightline?  4a. If yes, provide a decorate and the site of the	escription of the airport/flightline tenants:			

# **Visual Survey Inspection Log**

Other Significant S	ite Features:				
1. Does the facility h	ave a fire suppression system? Y / N				
	1a. If yes, indicate which type of AFFF has been used:				
	N/A				
	1b. If yes, describe maintenance schedule/leaks:				
	N/A				
	1. If you have after in the AFFF really and				
	1c. If yes, how often is the AFFF replaced:  N/A				
	1 1 1 1				
	1d. If yes, does the facility have floor drains and where do they lead? Can we obtain an as built drawing?				
	N/A				
Transport / Path	way Information				
Migration Potential					
	inage flow off installation?				
	1a. If so, note observation and location:				
	The northern side of the AASF surface flows north, and	the souther	n side flow	s south	
2. Is there channelize	ed flow within the site/area?	the souther	Y / <u>N</u>	3 South.	
	2a. If so, please note observation and location:			•	
3 Are monitoring or	drinking water wells located near the site?		Y / <u>N</u>		
errare memering er	3a. If so, please note the location:			J	
1 Ara surface water	intakes located near the site?		V / N		
4. Are surface water	4a. If so, please note the location:	<u></u>	Y / <u>N</u>	J	
	4a. 11 50, picase note the location.				
5 C	- information 1 - alteriard9 V/N				
5. Can wind dispersi	on information be obtained? $Y / \underline{N}$ 5a. If so, please note and observe the location.				
	5a. 11 so, piease note and observe the location.				
	The state of the s				
6. Does an adjacent r	non-ARNG PFAS source exist? Y/N				
	6a. If so, please note the source and location.				
		-			
	6b. Will off-site reconnaissance be conducted?	/ / N			

# **Visual Survey Inspection Log**

Significant Topograp	ohical Features:				
1. Has the infrastructure changed at the site/area? Y / N					
	1a. If so, please describe change (ex. Structures no longer exist):				
2. Is the site/area vege	tated? Y/N				
8	2a. If not vegetated, briefly describe the site/area composition:				
3 Does the site or are	a exhibit evidence of erosion? Y / N				
3. Does the site of area	3a. If yes, describe the location and extent of the erosion:				
	5a. If yes, describe the location and extent of the crosion.				
15 1 11	THE STATE OF THE S				
4. Does the site/area e	xhibit any areas of ponding or standing water? $\underline{\underline{Y}/N}$				
	4a. If yes, describe the location and extent of the ponding:				
	Severe flooding surrounding the facility on all sides up to the flight line occurred in March 2019. There is no				
	consistent ponding or standing water.				
Receptor Informa	tion				
1. Is access to the site					
	1a. If so, please note to what extent:				
	The facility has controlled access.				
	Site Workers / Construction Workers / Trespassers / Residential / Recreational				
2. Who can access the					
2a. Circle all that apply, note any not covered above:					
2 Ama magidantial amaa	g located moon the gite?				
3. Are residential area	s located near the site?  2. If an elegan rate the location distance. $\underline{\underline{\mathbf{Y}}}/\underline{\mathbf{N}}$				
	3a. If so, please note the location/distance:				
	There is residential to the northeast (less than 2 miles), and across the Missouri River to the west and south				
	(less than 2 miles).				
4. Are any schools/day	y care centers located near the site? $\underline{\underline{Y}} / \underline{N}$				
4a. If so, please note the location/distance/type:  There are approximately 6 schools/day cares within a 4 mile radius of the AASF.					
5. Are any wetlands lo	ocated near the site? Y / N				
·	5a. If so, please note the location/distance/type:				

# **Visual Survey Inspection Log**

Additional Notes		

Photographic Log

Photo ID/Name	Date & Location	Photograph Description
1	7/10/2019, GSE building	The freeze protected AFFF used in the TriMax30TM fire extinguishers. The containers were found in the GSE building.
2	7/10/2019, wash rack	This is a view of the outdoor wash rack located within AOI 2.
3	7/10/2019, west ramp nozzle testing	This is a view of the west ramp nozzle testing area in AOI 1 facing south.
4	7/10/2019, fire truck storage building	This is where the bulk AFFF was stored in the fire truck storage building.
5	7/10/2019, hangar	This is an ABC dry chemical fire extinguisher located in the hangar.
6	7/10/2019, wash rack	This is the $TriMax30^{TM}$ fire extinguishers that were dumped at the wash rack and used during fire training.

# Appendix B.3 Conceptual Site Model Information

# **Preliminary Assessment – Conceptual Site Model Information**

# Site Name: Jefferson City Army Aviation Support Facility

## Why has this location been identified as a site?

Facility is an aviation support site with aircraft hangars, high probability of release due to asset type and historical site usage.

## Are there any other activities nearby that could also impact this location?

No

## **Training Events**

Have any training events with AFFF occurred at this site? Yes

If so, how often? *One-time training event on wash rack area* 

How much material was used? Is it documented? *Unknown* 

**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? *The direction of surface water flows to the southeast of the site.* 

Average rainfall? 36.3 inches

Any flooding during rainy season? Yes

Direct or indirect pathway to ditches? *Direct* 

Direct or indirect pathway to larger bodies of water? *Indirect to the Missouri River* 

Does surface water pond any place on site? Due to severe flooding, there were ponds of water on the west, south and east sides of the facility.

Any impoundment areas or retention ponds? No

Any NPDES location points near the site? Yes

How does surface water drain on and around the flight line? unknown

### **Groundwater:**

Groundwater flow direction? The groundwater flow direction is south.

Depth to groundwater? unknown

Uses (agricultural, drinking water, irrigation)? *Not used*.

Any groundwater treatment systems? *None known* 

Any groundwater monitoring well locations near the site? *No* 

Is groundwater used for drinking water? Drinking water is supplied by Jefferson City which obtains water from deep groundwater wells.

# **Preliminary Assessment – Conceptual Site Model Information**

Are there drinking water supply wells on installation? No

Do they serve off-post populations? *No* 

Are there off-post drinking water wells downgradient? No, but there is a public water well upgradient within 4 miles.

## **Waste Water Treatment Plant:**

Has the installation ever had a WWTP, past or present? No

If so, do we understand the process and which water is/was treated at the plant? N/A

Do we understand the fate of sludge waste? *N/A* 

Is surface water from potential contaminated sites treated? *N/A* 

# **Equipment Rinse Water**

- 1. Is firefighting equipment washed? Where does the rinse water go? *There is a wash rack on the east side of the hangar.*
- 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?

The firetruck was tested on the far east ramp and west ramp area by the hangar.

3. Other?

## **Identify Potential Receptors:**

Site Worker Yes

Construction Worker Yes

Recreational User No

Residential No

Child No

Ecological No

Note what is located near by the site (e.g. daycare, schools, hospitals, churches, agricultural, livestock)? *Light industrial, airport* 

## **Documentation**

Ask for Engineering drawings (if applicable). Has there been a reconstruction or changes to the drainage system? When did that occur? *There is no known reconstruction to the AASF*.

Appendix C
Photographic Log

# APPENDIX C - Photographic Log

Army National Guard, Preliminary Assessment for PFAS

Jefferson City AASF

Missouri

# Photograph No. 1

# **Description:**

The freeze protected AFFF used in the TriMax30<sup>TM</sup> fire extinguishers. The containers were found in the GSE building.



# Photograph No. 2

## **Description:**

This is a view of the outdoor wash rack located within AOI



# APPENDIX C - Photographic Log

Army National Guard, Preliminary Assessment for PFAS

**Jefferson City AASF** 

Missouri

# Photograph No. 3

# **Description:**

This is a view of the west ramp nozzle testing area in AOI 1 facing south.



# Photograph No. 4

## **Description:**

This is where the bulk AFFF was stored in the fire truck storage building.



# APPENDIX C - Photographic Log

Army National Guard, Preliminary Assessment for PFAS

Jefferson City AASF

Missouri

# Photograph No. 5

# **Description:**

This is an ABC dry chemical fire extinguisher located in the hangar.



# Photograph No. 6

## **Description:**

This is the TriMax30<sup>TM</sup> fire extinguishers that were dumped at the wash rack and used during fire training.

