

Appendix B: Campus Description, Oil Storage Overview, Drainage Pathway and Distance to Navigable Waters

IU Bloomington

Campus Description

The IUB campus is located in Bloomington Indiana, Monroe County. The campus is also situated in the Lower East Fork White River Watershed. A large majority of local runoff drains into the Jordan River which bisects the southern portion of the property. The university occupies nearly 1,900 acres and owns approximately 480 buildings. These buildings include lecture halls, laboratories, offices, maintenance facilities, athletic structures, dining halls, apartments, and dormitories. The campus also maintains a Central Heating Plant (CHP) and a Chilled Water Plant (CWP).

Oil Storage Overview

Oil and petroleum products are present throughout the IUB campus in above and below ground storage tanks, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment, as well as numerous 55-gallon drums. IUB utilizes the following types of oil and petroleum products: gasoline, diesel fuel, No. 2 fuel oil, No. 4 fuel oil, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: heating of campus buildings; emergency power generation; domestic uses; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; trash compactors; compressors; and equipment maintenance activities. A large majority of oil tank, emergency generator, and transformer locations are illustrated on a graphical information system available for viewing at the IUB Physical Plant department.

Above & Below Ground Tanks

There are eight large fuel oil tanks on the IUB campus. One of these supplies fuel for two emergency generators at the Data Center. They range in capacity from 250 gallons to 32,000 gallons. The total volume of these tanks is estimated at 75,275 gallons. Four of these tanks are located underground. A list of these tanks with their respective locations and capacities is provided in Appendix F. All tanks are equipped with oil level gauges and automatic overfill protection unless otherwise stated. Inspections and tank integrity tests are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tanks of emergency generators located throughout campus. There are 53 electrical generators on campus which have average tank capacities of 753 gallons. The total volume of these tanks is estimated at 42,425 gallons. All generator tanks are equipped with fuel level gauges unless otherwise stated. A list of these generators along with their respective locations and capacities is provided in Appendix E.

Transformers

There are currently 126 non-PCB oil transformers located on concrete pads throughout the property. While the volume of oil inside individual transformers vary, they average approximately 97 gallons each. The estimated total volume of transformer oil on campus is approximately 12,196 gallons. A complete list of transformers on campus is located in Appendix D.

Elevators

A large majority of elevators on the IUB campus are non-hydraulic (traction). There are currently 47 hydraulic elevators on the campus and their hydraulic reservoir capacities average approximately 100 gallons. The estimated total volume of hydraulic elevator oil on campus is approximately 5,448 gallons. All reservoirs are equipped with oil level gauges unless otherwise stated. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

IUB is located near three water bodies, which could be impacted by a spill. Jordan River flows westerly through campus and continues through downtown Bloomington underneath Kirkwood Avenue. The river then flows south into Clear Creek which eventually empties into the East Fork of the White River. Several IU oil storage tanks are located several hundred feet from this creek. The south fork of Griffy Creek is located east of the main portion of campus. This creek flows three miles north and empties into the Griffy Reservoir. Some of the university-owned buildings containing oil stores are also close to this creek. The Cascades Creek begins at the northwestern corner of the campus and flows north into the northern portion of the Griffy Creek. The Griffy Creek then flows north several miles where it also empties into the West Fork of the White River. Several oil stores inside athletic structures are located near the Cascades Creek. Due to the unique water features of the IUB campus, a limited potential exists for oil to reach one of these creeks. A release on campus also has the potential to reach the extensive network of storm sewer catch basins which drain into these same creeks.

Campus Description

The IUE campus is located in Richmond, Indiana (Wayne County) near the Ohio border and just to the east of the intersection of Highway 27 and Interstate 70. The university occupies approximately 182 acres and owns 7 buildings. It shares one building with the Purdue University School of Technology. It is bordered on the north by Ivy Tech and on the south by Reid Hospital. Middlefork Reservoir is located approximately ½ mile to the east/southeast of the campus. The campus is drained by a combination of enclosed storm sewer lines, open ditches, and sheet flow. IU East has constructed a wetland to serve as a filter for a portion of their storm water runoff. Two small ponds receive and detain runoff from one of the two main parking lots. A heavily wooded area separates the campus from the main receiving waters.

Oil Storage Overview

Oil and petroleum products are present throughout the IUE campus in above ground storage tanks, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment. IUE utilizes the following types of oil and petroleum products: gasoline, diesel fuel, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: heating of campus buildings; emergency power generation; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; compressors; and equipment maintenance activities. Currently there is no grease dumpster on the IUE campus.

Above & Below Ground Tanks

There is one large diesel fuel tank on the IUE campus. This tank is not utilized for emergency generators and has a capacity of 300 gallons. The tank is located outside of the Chiller Building. A list of this tank with its respective location and capacity is provided in Appendix F. The tank is equipped with a level gauge and automatic overfill protection. Inspections and tank integrity tests are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tanks of emergency generators located throughout campus. There are four electrical generators on campus. The total volume of these tanks is 700 gallons. All generator tanks are equipped with fuel level gauges unless otherwise stated. A list of these generators along with their respective locations and capacities is provided in Appendix E.

Transformers

There are currently 16 oil transformers located throughout the property. While the volume of oil inside individual transformers vary, they average approximately 172 gallons each. The

estimated total volume of transformer oil on campus is approximately 2,758 gallons. A complete list of transformers on campus is located in Appendix D.

Elevators

There are currently 5 hydraulic elevators on the campus and their hydraulic reservoir capacities average approximately 90 gallons. The estimated total volume of hydraulic elevator oil on campus is approximately 452 gallons. All reservoirs are equipped with oil level gauges unless otherwise stated. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

The campus is drained by a combination of enclosed storm sewer lines, open ditches, and sheet flow. A single, unnamed, intermittent tributary to the Middle Fork Reservoir is located within the campus boundary and receives the majority of the campus runoff. At its closest point, the reservoir itself is approximately ½ mile from the eastern edge of the campus. Three additional intermittent streams, located off campus, receive runoff from swales or sheet flow from the campus. Two of these off-campus channels flow to the southeast, into the Middle Fork East Fork Whitewater River; an unnamed tributary to the reservoir, and an unnamed tributary of the Middle Fork whose confluence is downstream of the dam. The third off campus channel drains to the west and is an unnamed tributary of the West Fork East Fork Whitewater River. The Richmond Sanitary District (RSD) operates and maintains six (6) combined sewer overflows (CSO) that discharge to the East Fork of the Whitewater River during wet weather.

Campus Description

The IUK campus is located in Kokomo, Indiana (Howard County). The campus is drained by a combination of sewers and surface waterways, including one unnamed intermittent tributary to Kokomo Creek. All of the drainage ways empty into Kokomo Creek. There are no combined sewers on the Kokomo campus. The university occupies approximately 50 acres and owns 13 buildings.

Oil Storage Overview

Oil and petroleum products are present throughout the IUK campus in above ground storage tanks, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment. IUK utilizes the following types of oil and petroleum products: gasoline, diesel fuel, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: emergency power generation; domestic uses; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; and equipment maintenance activities.

Above Ground Tanks

There are three large oil tanks on the IUK campus. These tanks are not utilized for emergency generators. The first tank has a capacity of 200 gallons, the second tank has a capacity of 300 gallons, and the third tank has a capacity of 500 gallons. The total volume of these tanks is 1,000 gallons. These tanks are located outside behind the Grounds Barn. A list of these tanks with their respective locations and capacities is provided in Appendix F. All tanks are equipped with oil level gauges unless otherwise stated. Inspections and tank integrity tests are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tank of an emergency generator located on campus. It is located in the library basement in KC002D. The total volume of this tank is 1,800 gallons. The generator tank is equipped with fuel level gauge unless otherwise stated. A list of the generator along with the respective location and capacity is provided in Appendix E.

Elevators

There are currently seven hydraulic elevators on the campus. The estimated total volume of hydraulic elevator oil on campus is approximately 958 gallons. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

IUK is located near one waterbody, which could be impacted by a spill. Kokomo Creek flows westerly through campus and continues through Kokomo, IN until it converges with the North Fork of Wild Cat Creek. Wild Cat Creek empties into the Wabash River. Due to the unique water features of the IUK campus, a limited potential exists for oil to reach one of these creeks. A release on campus also has the potential to reach the extensive network of storm sewer catch basins which drain into these same creeks.

Campus Description

The IU Northwest campus is located in Gary, Indiana (Lake County). The campus is drained by a combination of enclosed storm sewer lines, open ditches, and sheet flow. On-campus storm water drains are connected to city-owned and operated storm drains. These drains connect to city-owned and operated combined sewers or separate storm sewers just east of the campus. It is our understanding that combined waste is then conveyed to the waste water treatment facility for proper treatment. Separate storm sewers are discharged to the Little Calumet River just north of Connecticut. During times of unusual water flow, combined sewer overflows operate and the waste water drains to the Little Calumet River (perennial river). The university occupies approximately 42 acres and owns 13 buildings. These buildings include lecture halls, laboratories, offices, and maintenance facilities.

Oil Storage Overview

Oil and petroleum products are present throughout the IU Northwest campus in above ground storage tanks, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment. IU Northwest utilizes the following types of oil and petroleum products: gasoline, diesel fuel, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: heating of campus buildings, emergency power generation, domestic uses, electrical transformers, vacuum pumps, hydraulic elevators and lifts, cooking equipment, trash compactors, compressors, and equipment maintenance activities.

Above & Below Ground Tanks

There are three large oil tanks on the IU Northwest campus. These tanks are not utilized for emergency generators. Two have a capacity of 550 gallons (each) and the third has a capacity of 250 gallons. The total volume of these tanks is 1,350 gallons. These three tanks are located outside of the Physical Plant and within a fenced-in maintenance area. A list of these tanks with their respective locations and capacities is provided in Appendix F. The fuel tanks are equipped with oil level gauges unless otherwise stated. Inspections are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tanks of emergency generators located throughout campus. There are three electrical generators on campus. The total volume of these tanks is 1013 gallons. Generator tanks are equipped with fuel level gauges unless otherwise stated. A list of these generators along with their respective locations and capacities is provided in Appendix E.

Transformers

There are currently ten oil transformers located throughout the property. While the volume of oil inside individual transformers vary, they average approximately 460 gallons each. The estimated total volume of transformer oil on campus is approximately 4249 gallons. A complete list of transformers on campus is located in Appendix D.

Elevators

There are currently nine hydraulic elevators on the campus and their hydraulic reservoir capacities average approximately 150 gallons (each). The estimated total volume of hydraulic (elevator) fluid on campus is approximately 1350 gallons. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

IU Northwest is located near two water bodies which could be impacted by a spill. The Little Calumet River flows through this area of Gary just north of the IU Northwest campus. The only structures that exist separating the campus from the river is a wetland area just north of Lot 1 (parking lot) and the levee. Runoff from the far north part of the campus enters this wetland and Little Calumet River. On-campus storm water drains are connected to city-owned and operated storm drains. These drains connect to city-owned and operated combined sewers or separate storm drains just east of the campus. It is our understanding that combined waste is then conveyed to the waste water treatment facility for proper treatment. Separate storm sewers are discharged to the Little Calumet just north of Connecticut. During times of unusual water flow, combined sewer overflows operate and the waste water drains to the Little Calumet River. The Little Calumet River flows eastward and discharges to Lake Michigan via the Portage Burns Waterway (approximately 12 miles downstream). Due to the unique water features of the IU Northwest campus, a limited potential exists for oil to reach one of these waterways by either overland paths or the extensive network of storm sewer catch basins which can drain to waterways (treated or untreated).

Campus Description

The IUPUI Campus is located within metropolitan Indianapolis/Marion County, Indiana. The campus is also situated in the Glacial Outwash Aquifer of the White River watershed. A local surface water runoff drains into a combined sewer systems that drains directly or indirectly into either Fall Creek which flows along the northern boundary of the campus or the White River which western edge of the campus. The university occupies nearly 360 acres and is comprised of approximately 60 individual buildings. These buildings include lecture halls, laboratories, offices, maintenance facilities, athletic structures, apartments, and dormitories.

Oil Storage Overview

Oil and petroleum products are present throughout the IUPUI Campus in above and below ground storage tanks, emergency generator fuel tanks, kitchen operations, stores, transformers, switches, pumps, compressors and other mechanical or electrical equipment, as well as 55-gallon drums. IUPUI utilizes the following types of oil and petroleum products: gasoline, diesel fuel, No. 2 fuel oil, transformer oil, lubricating oil, cooking oil, compressor fluid, and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: heating of campus buildings; emergency power generation; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; trash compactors; compressors; and equipment maintenance activities. A large majority of oil tank, emergency generator, and transformer locations are illustrated on a graphical information system available for viewing at the offices of IUPUI Campus Facility Services.

Above & Below Ground Tanks

There are 9 fuel oil tanks on the IUPUI Campus. These tanks are primarily utilized for emergency generators. They range in capacity from 500 gallons to 6000 gallons. The total volume of these tanks is estimated at 42,500 gallons with an average capacity of 4,722 gallons. One of these tanks is located aboveground. All tanks are equipped with oil level gauges and automatic overfill protection unless otherwise stated.

Emergency Generators

Number 2 fuel oil is also stored in the holding tanks of emergency generators located throughout campus. There are 30 emergency generators on campus (28 of which are fueled by fuel oil and two are natural gas) which have average day-tank capacities of 1033 gallons. The total volume of these tanks is estimated at 28,929 gallons. All generator day tanks are equipped with fuel level gauges unless otherwise stated.

Transformers

There are currently 60 non-PCB or PCB-contaminated oil-filled transformers located on concrete pads or within concrete electrical vaults throughout the campus. While the volume of oil inside individual transformers varies, the units average approximately 252 gallons in capacity. The estimated total volume of transformer oil on campus is approximately 15,107 gallons.

Elevators

There are currently 68 hydraulic elevators or lifts located on the IUPUI Campus and their hydraulic reservoir capacities average approximately 171 gallons. The estimated total volume of hydraulic elevator oil on campus is approximately 11,067 gallons. All reservoirs are equipped with oil level gauges unless otherwise stated.

Drainage Pathway and Distance to Navigable Waters

IUPUI is located near two main water ways, which could be impacted by a spill. White River flows in a southern direction along the western edge of campus and continues through downtown Indianapolis. Fall Creek flows in a westerly direction along the northern edge of campus where it drains directly into the White river on the northwest corner of campus. A release on campus has the potential to reach the network of Fall Creek and/or White River. In addition, copies of campus sanitary and storm sewer maps are maintained within the offices of EHS and Campus Facility Services.

Campus Description

The IUSB campus is located in South Bend, Indiana (St. Joseph County). The campus is drained by a combination of enclosed storm sewer lines, and sheet flow that primarily empty into the St. Joseph River. The university occupies approximately 80 acres and owns 21 buildings. These buildings include lecture halls, laboratories, offices, student apartments and maintenance facilities.

Oil Storage Overview

Oil and petroleum products are present throughout the IUSB campus in above ground storage tanks, below ground storage tank, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment. IUSB utilizes the following types of oil and petroleum products: gasoline, diesel fuel, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: emergency power generation; domestic uses; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; and equipment maintenance activities.

Above & Below Ground Tanks

There are three large oil tanks on the IUSB campus. Two of these tanks are above ground and are not utilized for emergency generators. They both have a capacity of 250 gallons each. The total volume of these tanks is 500 gallons. These tanks are located outside of the Facilities Management maintenance area. The other tank is underground and is utilized for an emergency generator. This tank has a capacity of 10,000 gallons. A list of these tanks with their respective locations and capacities is provided in Appendix F. All tanks are equipped with oil level gauges. Inspections and tank integrity tests are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tanks of emergency generators located throughout campus. There are four electrical generators on campus with holding tanks. There is one generator on campus that has a below ground tank. The tank for that generator is listed in the above & below ground tank section. The total capacity of these tanks not including the below ground is 1,135 gallons. All generator tanks are equipped with fuel level gauges unless otherwise stated. A list of these generators along with their respective locations and capacities is provided in Appendix E.

Transformers

There are currently four oil transformers located throughout the property. The estimated total volume of transformer oil on campus is approximately 861 gallons. There is one generator on campus that uses approximately 585 gallons of FR3 transformer fluid. A complete list of transformers on campus is located in Appendix D.

Elevators

There are currently 13 hydraulic elevators on the campus. The estimated total volume of hydraulic elevator oil on campus is approximately 3,481 gallons. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

IUSB is located along the St. Joseph River in the watershed of Lake Michigan. A release on campus has the potential to reach the St. Joseph River depending on the location of the leak. The IUSB campus drainage is collected in storm sewers and directed to one of three places. Some drains go to dry wells, some are combined with sanitary lines, and some empty directly into the St. Joseph River. The eastern edge of the campus, on the north side of the St. Joseph River, is serviced by drainage systems owned and operated by the City of South Bend.

Campus Description

The IUS campus is located in New Albany, Indiana (Floyd County). The campus is drained by a combination of enclosed storm sewer lines, open ditches, and sheet flow that primarily empty into two intermittent streams. Blackiston Run collects runoff from parts of the northern ¼ of the campus. After Blackiston Run leaves the campus it becomes a perennial stream and empties into Silver Creek which is a tributary to the Ohio River. Rail Run, an intermittent stream, receives drainage via storm sewer pipes, open ditches, and sheet flow, from a majority of the campus. The channel is twice interrupted by dams forming ponds on the western edge of the Southeast campus property. Rail Run carries drainage south, beyond the campus boundaries before joining Slate Run south of I-265. Slate Run, a perennial stream, runs along the south boundary of the campus, receiving sheet flow from a small portion of the campus. Slate Run is also a tributary of Silver Creek. The university occupies approximately 200 acres and owns 13 buildings. These buildings include lecture halls, laboratories, offices, and maintenance.

Oil Storage Overview

Oil and petroleum products are present throughout the IUS campus in above ground storage tanks, emergency diesel fuel tanks, transformers, switches, pumps, compressors and other mechanical or electrical equipment. IUS utilizes the following types of oil and petroleum products: gasoline, diesel fuel, transformer oil, lubricating oil, cooking oil, compressor fluid, motor oil and hydraulic fluid. The oils and petroleum products listed above are used in the following types of applications: heating of campus buildings; emergency power generation; domestic uses; electrical transformers; vacuum pumps; hydraulic elevators and lifts; cooking equipment; trash compactors; compressors; and equipment maintenance activities.

Above & Below Ground Tanks

There are three large oil tanks on the IUS campus. These tanks are not utilized for emergency generators. They all have a capacity of 550 gallons each. The total volume of these tanks is 1,650 gallons. These tanks are located outside of the Physical Plant maintenance area behind a fence. A list of these tanks with their respective locations and capacities is provided in Appendix F. All tanks are equipped with oil level gauges and automatic overfill protection unless otherwise stated. Inspections and tank integrity tests are also performed on a regular basis.

Emergency Generators

Diesel fuel is also stored in the holding tanks of emergency generators located throughout campus. There are 3 electrical generators on campus. The total volume of these tanks is 783 gallons. All generator tanks are equipped with fuel level gauges unless otherwise stated. A list of these generators along with their respective locations and capacities is provided in Appendix E.

Transformers

There are currently 19 oil transformers located throughout the property. While the volume of oil inside individual transformers vary, they average approximately 264 gallons each. The estimated total volume of transformer oil on campus is approximately 5,025 gallons. A complete list of transformers on campus is located in Appendix D.

Elevators

There are currently 10 hydraulic elevators on the campus and their hydraulic reservoir capacities average approximately 152 gallons. The estimated total volume of hydraulic elevator oil on campus is approximately 1,515 gallons. All reservoirs are equipped with oil level gauges unless otherwise stated. A complete list of elevators and their oil capacities is located in Appendix G.

Drainage Pathway and Distance to Navigable Waters

IUS is located near three water bodies, which could be impacted by a spill. Blackiston Run collects runoff from parts of the northern $\frac{1}{4}$ of the campus. After Blackiston Run leaves the campus it becomes a perennial stream and empties into Silver Creek less than two miles downstream. Rail Run, an intermittent stream, receives drainage via storm sewer pipes, open ditches, and sheet flow, from a majority of the campus. The channel is twice interrupted by dams forming ponds on the western edge of the Southeast campus property. Rail Run carries drainage south, beyond the campus boundaries before joining Slate Run south of I-265. Slate Run, a perennial stream, runs along the south boundary of the campus, receiving sheet flow from a small portion of the campus. Slate Run flows less than two miles before emptying into Silver Creek which is a tributary to the Ohio River. Due to the unique water features of the IUS campus, a limited potential exists for oil to reach one of these creeks. A release on campus also has the potential to reach the extensive network of storm sewer catch basins which drain into these same creeks.