STORM WATER POLLUTION PREVENTION PLAN

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FERMI NATIONAL ACCELERATOR LABORATORY
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STORM WATER POLLUTION PREVENTION PLAN
Fermi National Accelerator Laboratory
Batavia, Illinois

1.0 INTRODUCTION

1.1 Statement of Policy

It is the policy of Fermi Research Alliance, LLC. (FRA) and the US Department of Energy (DOE) that, Fermi National Accelerator Laboratory (Fermilab) located in Batavia, Illinois will take the necessary steps to minimize the potential for industrial activities to significantly impair the quality of storm water runoff from the facility. The following Storm Water Pollution Prevention Plan (SWPPP) has been implemented to meet this goal.

1.2 Permit Coverage and Requirements

In August 1994, Fermilab was issued a National Pollutant Discharge Elimination System (NPDES) permit (#IL0026123) for combined discharge of non-contact cooling and storm water. In September 1999, Fermilab was reissued NPDES permit IL0026123. The renewal application incorporated upgrades and modifications at Fermilab, including the construction of a new accelerator, the Main Injector. The modifications resulted in the addition of three new outfalls for a total of six. The modified final NPDES permit IL
0026123 was issued on July 25, 2008 and then again on April 1, 2014 and includes all six outfalls. A copy of Fermilab's NPDES storm water permit is included in Appendix A and will remain a permanent part of this plan.

Fermilab has developed this Storm Water Pollution Prevention Plan (SWPPP) in accordance with Special Condition 9 of the facility's NPDES permit. The plan establishes a Pollution Prevention Team and includes a description of the site and its industrial activities, an inventory of potential storm water pollutants, a set of preventive, maintenance, and mitigative measures for controlling pollution via storm water, an employee training program, and an inspection and record-keeping process.

Coverage under the current NPDES Permit No. IL0026123 became effective as of April 1, 2014 and expires on March 31, 2019.

1.3 Location, Ownership and Occupancy

Fermilab is located in the southeastern part of Township 39 North, Range 8 East, Kane County and in the southwestern quarter of Township 39 North, Range 9 East, DuPage County, Illinois. Fermilab is a program-dedicated national laboratory operated by Fermi Research Alliance, LLC. (FRA) for the United States Department of Energy (DOE). FRA is a consortium of universities in the United States with members also in Canada, Japan, and Italy. Fermilab's daily population is approximately 2,100 employees, plus hundreds of users and daily visitors. Fermilab is bound on the east by the Canadian National Railroad, underground pipelines, and overhead high voltage electrical transmission lines. The southern portion of Fermilab is bound by the Batavia Branch of the Illinois Prairie Path and Butterfield Road (IL Rt 56). The western portion of Fermilab is bound by Kirk Road. The northern portion of Fermilab is bound by the Burlington Northern Railroad and agricultural fields.

Figure 1, the Site/Vicinity Map, shows the facility relative to local physical and topographic features, watersheds, and the general facility layout and site features relevant to the NPDES Permit.

1.4 Site Description

The site encompasses approximately 6,784 acres and is divided into four (4) general functional areas, which are as follows:

- Technical Areas including Wilson Hall, Footprint, Antiproton, Main Ring, Main Injector, NuMI, Fixed Target, and Technical Division Areas;
- Support Areas including Fermilab Fire Department, the Hazardous Storage Building (#936) Fuel Service Center, Radiation Physics Calibration Facility, Site 39 Maintenance Storeroom/Radioisotope Analysis Laboratory, Site 38 FESS Operations, and Site 37 Roads and Grounds;
- Fermilab Village including Village Residential and Technical Areas; and,
- Outlying Areas including the central office for Fermilab Security, storage, office space, bison herd maintenance areas, and Site 55, Hazardous Waste Storage Facility on the eastern portion of the site and the Director's residence and the Pine Street Guardhouse at the Main Entrance to the west. The majority of the Outlying Areas consists of woodlands, native grasses, and cultivated farmland.

1.5 Facility Activities

Fermilab's mission is to provide resources necessary for qualified researchers to conduct basic research at the frontiers of the field of high-energy physics and related disciplines. Fermilab carries out this mission in a variety of ways, which include:

- A collider program
- A neutrino physics/fixed-target program
- Accelerator research and development programs
- Science education and literacy programs
- Work for others

Fermilab was established in late 1967 and was designed for research in high-energy physics. This research concentrates on finding the ultimate building blocks of nature and on understanding the forces acting between them. The laboratory consists of a series of large particle accelerators (Linac, Booster, Tevatron, and Main Injector) that are used in the high-energy physics program to investigate the structure of matter. Collisions of particles are studied using the Tevatron and Main Injector accelerators for "collider experiments" and "fixed-target experiments". The Tevatron accelerates a collimated, or focused, collection of subatomic particles (beam). In the Collider mode of operation, two counter-rotating beams in the Tevatron accelerator pass through each other at two points in the detector. A few particles from each beam strike each other producing short-lived forms of matter that are then studied by scientists at Fermilab. In the fixed target mode of operation, a beam of protons from the accelerator complex is directed toward stationary targets made of various high-density materials. The collision produces subatomic particles that survive for short periods of time. Various techniques allow the matter to be studied by scientists.

2.0 STORM WATER POLLUTION PREVENTION PLAN

2.1 Drainage Areas

The approximately 6,784 acres Fermilab site consists of gently sloped topography with a maximum difference in elevation of 85 feet. The highest point is in the northwest portion and the lowest point is in the southeast area where Ferry Creek leaves the site. Drainage is slow and dependent on manmade ditches and canals and several underground drain tiles and pipelines. Approximately 111 acres or 1.63% of the Fermilab site is impervious to storm water.

Fermilab is situated between two principal surface water features. Approximately two miles to the west is the Fox River, which flows south. Approximately one half mile to the east is the West Branch of the DuPage River, which also flows south. Several surface water features are associated with Fermilab operations. Three natural watercourses, Kress Creek, Ferry Creek, and Indian Creek, convey water off site from Fermilab. Kress Creek enters the site from the north, turns east, and flows off site. The headwaters to Ferry Creek and Indian Creek originate on site. Ferry Creek rises from a series of manmade ponds in the southeast quadrant of Fermilab and leaves the facility near its southeast corner. Indian Creek begins within the northwestern portion of Fermilab, rises within the central laboratory area, flows south, and leaves the facility near the southwest corner.

Operation of Fermilab facilities requires large amounts of cooling water. Non-contact cooling water, used to cool the accelerator complex, is circulated through the surface water impoundments for evaporative cooling. The current system is designed to capture and retain as much precipitation for this purpose as possible. Excess storm water runoff is discharged from the facility during periods of high precipitation. Separate outfall locations have been established on each creek for purposes of the NPDES permit and are located on Figure 1. The outfall to each creek designates the location at which site cooling water becomes Waters of the State. Storm water runoff to surface water (collection ditches and ponds) on the site may contain other minor contributions such as building sump discharges, floor drains, air conditioner condensate, and once-through chiller water. A summary of each creek basin is provided below.

Ferry Creek Basin

This basin includes Lake Law, DUSAF Pond, AE Sea, and Sea of Evanescence. These surface water bodies have a combined surface area of 111 acres. Water from the Main Accelerator Ring pond system (Main Accelerator Ring Reservoir and Lake Logo) also overflows to Lake Law. The Ferry Creek Basin includes Site 55 Hazardous Waste Storage Facility (HWSF), Solid Waste Management Unit (SWMU) 5: Village Machine Shop, and SWMU 12: CUB Pipe and Clay Tile Field. The outfall for Ferry Creek (001) consists of a sluice gate and lies between the AE Sea and the Sea of Evanescence. SWMUs and outfalls are presented on Figure 1.

Kress Creek Basin

This basin includes Casey's Pond, Andy's Pond, Bull Rush Pond, and a number of drainage ditches used to convey water from the fixed-target experimental area. Casey's Pond has a surface area of approximately 10 acres and a mean depth of 12 feet. Bull Rush Pond has a surface area of approximately 2 acres and an average depth of 7 feet. The ditch system is divided into two main avenues, Meson and Proton ditches. The Meson system contains roughly 13,000 feet of ditches that run along the Meson and west Neutrino experimental beamlines. They run from the Master Substation north along the experimental beamline and cross Wilson Street west of Road A before flowing into Casey's Pond. The Proton ditch system contains roughly 10,000 feet of ditches and runs between the Proton and Neutrino experimental beamlines north from the Industrial Complex crossing Wilson Street east of Road A before entering Casey's Pond through the north inlet. The Kress Creek Basin includes the northern portion of the Support Area (Site 37), SWMU 13: Meson Hill Landfill, and SWMU 14: Railhead Storage Area. The outfall for Kress Creek (002) consists of a weir and lies at the end of the Transfer ditch before it enters Kress Creek. SWMUs and outfalls are presented on Figure 1.

Indian Creek Basin

This basin includes Swan Lake, Booster Ponds, West Pond, Main Injector Ponds, and a system of ditches between Pine Street and Road B. Swan Lake, Booster Ponds, and West Pond have a combined surface area of approximately 11 acres. The Main Injector Ponds have a combined area of 20 acres and are not connected to Indian Creek during normal precipitation conditions. Spillways at MI Pond C and MI Pond D at the south end of the Main Injector alleviate downstream flooding during high water conditions. The ditch system extends south from the Master Substation to Swan Lake. The industrial storm water outfalls for Indian Creek (003, 004, 005, and 006) are located at Swan Lake, MINOS Pond, MI Pond C and MI Pond D, respectively. The Indian Creek Basin includes the southern portion of the Support Area (Site 38), NuMI/MINOS Rock Stockpile, and the Technical Division. Pertinent SWPPP areas are presented on Figure 1.

In proximity to the three creek outfalls, emergency structural control measures are in place to reduce pollutants in offsite storm water discharges. These consist of gated weirs that can be raised to stop or slow the offsite discharge of water, thus increasing the time that a spill will take to reach the site boundary, allowing effective cleanup measures to be taken. Non-structural control measures for these creeks are composed of facility management controls of potential contaminants. There are no treatment systems for storm water runoff associated with the creek outfalls.

2.2 Interior Drainage Collection System

There are no interior drains that discharge to storm water conveyances at Site 55 HWSF, the Technical Division Industrial Buildings, or the other various Support Areas buildings. Interior floor drains discharge to the sanitary sewer system.

2.3 Sanitary Discharges

Sanitary wastewater from the offices and restrooms is permitted for discharge to the municipal sanitary sewer systems operated by the City of Batavia and Warrenville/Naperville Sanitary District. Fermilab holds two industrial wastewater pretreatment permits. One is located at the Central Utilities Building (CUB) and one at Industrial Building 4.

2.4 Process Water Discharges

Process water at the facility consists of non-contact cooling water that is circulated through the facility's cooling ponds. All process water discharges generated at the Fermilab facility are permitted under NPDES permit number IL0026123.

2.5 Vehicle Maintenance Areas

Fermilab maintains a fleet of vehicles for onsite transportation and maintenance of the facility. Vehicle maintenance is conducted at two locations, Site 37 and Site 38 Barn. All maintenance activities are conducted indoors. Used oil from Site 38 Barn is stored in 55-gallon drums located in a fully enclosed secondary containment shed outside the building. The remaining materials associated with vehicle maintenance are stored indoors.

2.6 Industrial Activities and Significant Materials

Fermilab currently operates a RCRA Part B permitted hazardous waste storage facility (HWSF) at Site 55 and maintains four, active solid waste management units (SWMUs) including: SWMU 5: Village Machine Shop, SWMU 12: CUB Piping and Clay Tile Field, SWMU 13: Meson Hill Landfill, SWMU 14: Railhead Storage Yard (Figure 2). Fermilab maintains a rock stockpile generated during the construction of the NuMI facility (Figure 9) and operates the Technical Division and Support Areas including Roads and Grounds, Vehicle Services and Receiving Warehouses (Figure 3). Further detail regarding these industrial activities is provided below.

<u>Site 55 HWSF</u>

The HWSF at Site 55 consists of three buildings, adjoined by an asphalt hardstand surrounded by a six-foot chain link fence (Figure 4). The facility is approximately 150 ft. x 150 ft. The HWSF is used for centralized temporary storage of regulated chemical waste materials generated on site. Buildings WS-1, and WS-2, are used for less than 90 day storage of RCRA hazardous waste and for storage of State of Illinois "Special" non-hazardous waste. Building WS-3 is a RCRA permitted hazardous waste storage unit and is used for greater than 90 day storage of hazardous waste, PCB waste and activated hazardous waste. Hazardous waste and activated hazardous waste are always stored in curbed secondary containment within closed buildings. All liquid wastes are stored inside containment areas within buildings at the facility. No liquid or hazardous wastes are stored on the asphalt hardstand.

Most waste containers are never opened while in storage and are either over packed or sent for disposal in the same containers in which they are received. Occasionally waste containers are opened for obtaining samples, conducting tests, or when transferring waste from one container to another. Such waste handling operations are always conducted inside containment areas within one of the buildings. The containment areas are of sufficient capacity to contain any foreseeable spills or leaks. Standard operating procedures require immediate cleanup, including documentation and follow up, of any spills or leaks.

SWMU 5: Village Machine Shop

The area near the Village Machine Shop is used for container accumulation of hazardous and nonhazardous waste generated by activities within the Village Machine Shop (Figure 5). The area began operating in about 1981. Drummed waste was originally stored in drums on pallets on the concrete driveway adjacent to the Village Machine Shop. SWMU 5 consists of two areas located in the driveway on the west side of the Village Machine Shop. The northwest area is approximately 4 by 7 feet and is located on the concrete driveway. Waste is currently stored at this location in 55-gallon drums placed in plastic containment units. The south area is approximately 12 by 10 feet and consists of plastic containment units placed on the soil adjacent to the concrete driveway. This SWMU typically stores four to six 55-gallon drums. Runoff from this area is conveyed via overland flow.

The original concrete driveway was removed in late November 1993 and was replaced with a new concrete surface in December 1993. The rubble and debris was disposed of off site at a permitted sanitary landfill following sampling and consultation with IEPA. Soil samples collected during the reconstruction of the driveway indicated trichloroethylene (TCE) and dichloroethlyene (DCE) contamination of the soil. However, given the localized extent of soil contamination identified during the investigation along with the limited potential for significant migration to on- or off-site receptors it was recommended in the report that the site concrete pad be maintained as a constructed barrier. In June 1998 the IEPA requested that a survey plat for this SWMU be completed. A certified professional land surveyor was contracted and descriptions written to permanently surveyed benchmarks within Fermilab property.

SWMU 12: CUB Piping and Clay Tile Field

The CUB Pipe and Clay Tile Field is located on 3 acres of ground within the Main Accelerator Ring, just south of Holter Road (Figure 6). SWMU 12 consists of the old CUB Pipe Tile Field which is a leach field system designed to dispose of effluent generated by the CUB resin regeneration system. The old field operated from about 1974 to 1978. A new field was operated from 1978 until May 1994.

The old field consisted of 500 feet of perforated, steel pipe located inside a gravel leach field. Sometime in 1974, this field began receiving cooling tower blowdown containing zinc chromate from the CUB. The old field received this waste stream until sometime in 1976, when Fermilab stopped using zinc chromate. The amount of zinc chromate released into the old field has been estimated to be 2,100 kilograms. From 1976 until 1978, the old field continued to receive effluent waste that did not contain zinc chromate. In September 1995, PRC Environmental Management, Inc. subcontracted the removal of the perforated steel pipe and excavated soil immediately adjacent to the pipe. The pipe and soil were characterized and disposed of properly.

The new field was installed in the fall of 1978. It consists of clay tiles located inside a gravel leach field. The new field began receiving ion-exchange regeneration effluent from the CUB

in the fall of 1978. The new field received about 3,500 gallons of effluent per discharge, with up to two discharges per week. After a discharge effluent would pond on the ground surface on top of the new leach field. The effluent contained high levels of chlorides and low levels of various metals, including mercury, copper, and lead. The new field stopped receiving effluent in May 1994. The effluent was subsequently permitted for discharge to the City of Batavia wastewater treatment plant. Portions of the clay tile field lateral lines and 240 cubic yards of contaminated soil, classified as non hazardous waste, were removed from the CUB site during the excavation and removal of a 400-foot-long east-west section and a 200-foot-long north-south section of perforated steel pipe in September 1995. A revised Phase II RFI work plan was submitted to IEPA in March, 1996, outlining the work required to assess potential contamination from the clay tile field utilizing test pits, soil sampling, installation of additional monitoring well and ground water sampling. Monitoring wells were installed per the RFI work plan to monitor the groundwater in the area of SWMU 12. In early 1998, the old clay tile field was removed and disposed of along with adjacent contaminated soil.

In June 1998 the IEPA requested that a survey plat for this SWMU be completed. A certified professional land surveyor was contracted and descriptions written to permanently surveyed benchmarks within Fermilab property. The survey along with the narrative description was submitted to the DuPage County Recorder of Deeds for permanent inclusion in Fermilab's deed and a copy sent to the IEPA in late 1999.

SWMU 13: Meson Hill Landfill

The Meson Hill Landfill was used to dispose of soil, concrete, asphalt, landscape waste, demolition material, and other debris generated throughout the facility (Figure 7). The landfill is located at the end of the Meson Fixed Target Experimental Line, just south of Wilson Road. Drainage ditches are located on the north, south, east, and west slopes and drain to Casey's Pond, about 0.25 mile to the north. SWMU 13 is one of two areas with steep slopes susceptible to erosion. The slopes are currently stabilized with vegetative cover and are inspected during the annual storm water inspection.

SWMU 13 was originally built in about 1970 to act as a meson shielding hill. Later it was operated as an above-grade area landfill. No trenching activities were associated with the landfill. The landfill eventually expanded westward to its current location and is about 10.2 acres in size. The base elevation is about 740 feet above mean sea level. The estimated final elevation was about 780 feet above mean sea level. The landfill ceased operating in September 1992. Access to SWMU 13 is restricted by a fence and locked gate. The entrance road is located on the north side, off of Wilson Road. From 1981 to 1992, dumping was restricted by permit only, and wastes consisted mainly of clean fill material, landscape waste, and demolition material. Before 1981, nonhazardous soil, concrete, asphalt, landscape waste, wood, lumber, metal, shingles, straw, cardboard, shielding block, grit blast dust, and asbestos containing material were disposed of at the landfill.

Phase I of the RFI required that ground water flow be determined and monitoring conducted around the landfill. Six monitoring wells were installed in the till units around the landfill with one background well installed up gradient. During the first quarter of 1997, Fermilab received formal closure guidance from IEPA. A closure plan was prepared and submitted during the second quarter of 1997. Fermilab received approval of the closure plan for SWMU 13 from IEPA. A revised closure plan was submitted during the third quarter of 1997. During the third quarter of 1997, closure activities including (1) moving concrete, (2) installing a clay cap, and (3) placing topsoil on the clay cap, were implemented. During the fourth quarter of 1997, closure activities including hydroseeding the top of the landfill and inspecting the SWMU were completed. During the first quarter of 1998 a new gate was installed and inspections, sampling and analysis were begun.

In June 1998 the IEPA requested that a survey plat for this SWMU be completed. A certified professional land surveyor was contracted and descriptions written to permanently surveyed benchmarks within Fermilab property. The survey along with the narrative description was submitted to the DuPage County Recorder of Deeds for permanent inclusion in Fermilab's deed and a copy sent to the IEPA in late 1999.

SWMU 14: Railhead Storage Area

The Railhead Storage Yard is an area used for long-term storage of metal parts that will be reused or recycled, and solid radioactive waste and materials. SWMU 14 is located on 11 acres of the north part of Fermilab, just south of the Burlington Northern Railroad Line (Figure 8). Access to this area is restricted and secured. SWMU 14 was constructed of gravel fill material in about 1971. It consists of two areas, the Yard (Railhead) and the Boneyard. The Yard began operating in about 1971, and the Boneyard began operating in about 1979.

The Yard comprises the majority of SWMU 14. It is used to store materials in rows on a gravel hardstand. Most materials are stored off of the ground on wood pallets or cribbing. Some materials have been activated with radiation and are stored inside an area located at the southern part of the Yard. High-activation materials are stored inside a roofed structure constructed of concrete shielding block. Low-activation materials are stored outside in a lighted area surrounded by a chainlink fence with barbed wire. The outside area does not have a roof. Solid wastes have been temporarily stored at various locations within the Yard. PCB transformers were temporarily stored on the west part of the Yard in the late 1980's.

The Boneyard is located in a fenced area on the east part of SWMU 14. It is designed to store radioactive waste. Access to the Boneyard is restricted by a locked gate on the east side. The wastes stored at the Boneyard are radioactive only and do not contain any hazardous constituents. The Boneyard consists of a gravel area, six storage bays, and a storage shed. The storage of radioactive waste on the gravel area at the Boneyard began in about 1979. Low-activation radioactive scrap material is still stored on the gravel area on the west side of the Boneyard. Concrete shielding blocks surround the low-activation radioactive

scrap. The six storage bays were constructed in about 1987 to store radioactive waste. Low-activation radioactive waste is contained within walls made of concrete shielding block. The roof and sliding door of each bay is constructed of metal. Bays 1 and 2 have concrete floors and store the highest activated radioactive waste. Bays 3, 4, 5, and 6 have gravel floors and store low-activation radioactive waste. The storage shed was constructed in about 1990 to store or process radioactive waste prior to its shipment off site. The walls of the shed are constructed of concrete shielding block that contains low-activation radioactive waste. The floor of the shed is concrete, and the roof is metal. The shed is currently empty and has not been used to store any radioactive waste since being constructed. No wastes containing hazardous constituents have ever been stored inside the shed. Past operations at the Boneyard also included the solidification of oil containing 1,2,4-trimethylbenzene. Oil solidification occurred in 55-gallon drums on the gravel area just north of the storage shed. The exact dates that oil solidification occurred are not known.

In June 1998 the IEPA requested that a survey plat for this SWMU be completed. A certified professional land surveyor was contracted and descriptions written to permanently surveyed benchmarks within Fermilab property. The survey along with the narrative description was submitted to the DuPage County Recorder of Deeds for permanent inclusion in Fermilab's deed and a copy sent to the IEPA in late 1999.

NuMI/MINOS Rock Stockpile

In 2000, Fermilab completed an extensive underground tunneling project (NuMI/MINOS). As a result of the tunneling project, an open stockpile of approximately 35,000 cubic yards of excavated rock remains at Fermilab (Figure 9). The stockpile will remain open and the rock will be used on site for infrastructure improvements. The stockpile is the second steeply sloped area susceptible to erosion. The stockpile will be managed with existing best management practices which include a vegetated earthen berm surrounding the pile, directing any runoff to an adjacent settling basin. During construction activities potential discharge from the settling basin was covered as a permitted outfall in NPDES permit No. ILG840111.

Technical Division (CHL @ Industrial Center)

The Technical Division area contains the Industrial Buildings where magnets and other experimental components are produced and the Central Helium Liquefier (CHL). The majority of operations are conducted inside the buildings of the Technical Division (Figure 3). The only piece of process equipment located outdoors is one oil compressor skid located near the northeast corner of CHL. The compressor sits on a concrete pad, is surrounded by a bolted down fiberglass berm, and is inspected by CHL personnel.

Support Areas

The Support Areas provide support services to Fermilab. Areas of significance include the Fuel Service Center, Site 38 Facility Engineering Services Section (FESS) Operations, and Site 37 Roads and Grounds. Loading and unloading operations occur at Site 55 HWSF, Site

38 warehouses, Fuel Service Center, and Site 37 Salt Dome (Figure 3). Fuel is loaded directly into underground storage tanks at the Fuel Service Center with the fuel tanker located on a containment pad. The warehouses receive materials via loading docks eliminating storm water exposure to materials being loaded and unloaded. The Site 37 Salt Dome is loaded directly by truck and front end loader. When not in use, the access doors of the Salt Dome remain closed to eliminate storm water contact. Vehicle Maintenance is performed inside the Roads and Grounds building at Site 37, and at Site 38 Barn. All maintenance and material storage is conducted indoors. The Site 37 Salt Dome stores road salt for the Roads and Grounds Department of Fermilab. All road salt is stored inside the enclosed dome.

CUB Brine Tank Area

A single-walled, 25 ton capacity fiberglass tank is located at the southeast corner of the Central Utility Building (CUB) for the storage of salt for use in the softening operation in the CUB. Salt is delivered indry, bulk form and blown pneumatically from the delivery truck through a 4 inch, positive "Cam-Lok" fitting, directly into the tank. In operation, the water level is maintained in the tank at approximately 6 feet above the tank bottom, and the resulting brine is pumped into the CUB as needed.

Industrial activities that may contribute to storm water pollution from the site are summarized in Table 1. Potential contaminants in Table 1 have remained essentially the same during the last five years.

2.7 Spill History

No reportable spill events have occurred at the facility in the past three years based on inquiry of site personnel.

Appendix B will be used to record future spills or releases at the site. Blank copies of the Record of Significant Spills and Leaks are included in Appendix B. Future reportable spills or releases will be recorded on this form at the time the spill or release is identified. If no spills or releases occur within a calendar year, an annual notation will be made on this form indicating that no spills or releases occurred in that calendar year. A record of spills and releases, or the annual entry documenting no releases, will remain part of the plan for a period of three years. Completed copies of the Record of Significant Spills and Leaks form will be kept in Appendix B.

2.8 Storm Water Sampling Data

Several storm water sampling events have taken place at Fermilab. A Storm Water Sampling Log and associated analytical data are provided in Appendix C.

3.0 MEASURES AND CONTROLS

3.1 Storm Water Pollution Prevention Team

The Fermilab facility Pollution Prevention Team (PPT) will include a chairman and two or more employees. Members of the PPT are listed in Appendix D. Appendix D must be updated any time a PPT member is added or removed. Members of the PPT are responsible for developing the SWPPP; assisting the team leader in implementation, maintenance, and revision of this SWPPP; and preventing, controlling, and remediating releases to storm water from the facility. As part of their duties, a member of the PPT will be responsible for annual inspections of the SWPPP drainage areas using Appendix E, Annual Inspection form.

3.2 Preventive Maintenance

All equipment and operational systems associated with areas within this plan will be observed for signs of failure during the Annual Inspection. These inspections have been designed to uncover conditions, such as cracks or slow leaks, which could cause breakdown or failures resulting in discharges of chemicals to storm sewers and surface waters. In the Annual Inspection form, each area identifies equipment, systems, and facility areas that should be inspected. Records of inspections and necessary repairs will be maintained for a minimum of three years. See table 1 for details.

3.3 Good Housekeeping

Fermilab personnel are responsible for maintaining good housekeeping at the facility. The facility follows a policy of promoting safety that includes good housekeeping practices. All areas incorporated into this plan will be maintained in a clean and orderly manner. Material/waste storage will be performed in such a manner as to promote a well maintained, clean environment. Appropriate Fermilab personnel will be educated in these best management practices.

3.4 Spill Prevention and Response Procedures

An Environmental Emergency Response Action Plan (EERAP) is included in Appendix I of the facility's Spill Prevention Control and Countermeasures (SPCC) Plan. The EERAP provides response procedures for employees detecting, responding, and managing an oil spill event. An inventory of the available cleanup and response materials can also be found in the EERAP.

3.5 Storm Water Management Practices

A number of Storm Water Management Practices (SWMPs) [often referred to as Best Management Practices (BMPs)] have been included in the design of the facility and/or implemented as a result of Fermilab's environmental compliance initiatives. A list of SWMPs is provided in Table 1.

- **Containment** – The HWSF at Site 55, SMWU 5: Village Machine Shop, Technical Division, and Support Areas are the only areas covered by this SWPPP that require secondary containment to prevent leaks and spills from impacting storm water. New products and waste materials stored in these locations are secondarily contained in compliance with 40 CFR 112 and Fermilab's SPCC Plan.
- **Oil and Grease Separation** – Oil and grease separation is utilized in one of two vehicle maintenance areas, Site 38 Barn, and minimizes oil contamination of storm water discharge from the area. Other locations covered by this SWPPP either do not store oils or secondarily contain all oil sources.
- **Debris and Sediment Control** – The Fermilab facility is designed to capture as much storm water as possible for use as non-contact cooling water. This design also provides ample time for debris and sediments to be minimized in storm water discharges. A bermed sedimentation basin is provided for the NuMI/MINOS Rock Stockpile.
- **Waste Chemical Disposal** – It is the policy of Fermilab that all waste chemicals such as antifreeze, degreasers, and used oil are recycled or disposed in accordance with all Federal, State, and Local regulations.
- **Storm Water Diversion** – Fermilab's onsite ditch and surface drainage system diverts storm water away from potential contaminant sources to the extent practicable. Fermilab also sites material storage locations to minimize potential impacts to storm water.
- **Covered Storage or Manufacturing Areas** – Fermilab utilizes covered areas for material/waste storage, vehicle maintenance, and fueling operations to minimize impacts to storm water.

3.6 Sediment and Erosion Prevention

Fermilab has developed general procedures to ensure that construction projects include effective sedimentation and erosion controls. This guidance is found in the Fermilab ES&H Manual, Chapter 8012. Fermilab also maintains specific procedures to address sediment and erosion control measures site wide at construction areas. They are contained in the Facility Engineering Services Section (FESS) construction procedure entitled "Environment, Safety and Health Procedures for Soil Erosion and Sediment Control During Construction Activities".

3.7 Employee Training and Record Keeping

General Employee: All new employees will receive general Environmental, Safety and Health (ES&H) orientation training before beginning their job duties. This training will provide the new employee with awareness of policies relating to environmental requirements and issues. Topics covered in this training include emergency response and storm water pollution prevention.

Fermilab Spill Plan Training: Oil handling personnel at Fermilab receive annual training regarding the SPCC plan including: sources of spills, material handling, spill prevention and response procedures, and inspection and report procedures. Spill response plans must be discussed in advance with employees working in the areas and appropriate training is to be provided. This training will be documented in the SPCC plan.

Emergency Spill Responder Training: Emergency Response Training is required annually for Emergency Spill Responder Personnel. Emergency Spill Responder Personnel include on-site organizations such as the Fire Department and Security. The training consists of a one-hour course, which includes relevant topics of facility operations and emergency response procedures.

Site 55 HWSF Training: Site 55 personnel include the HWSF Managers and Operators. These employees receive 24 hour Initial Hazardous Waste Training and 40 hour Hazardous Waste Site Operations Training. All of these training courses cover requirements for proper waste material handling and management as well as spill response and notification. HWSF Managers also receive 8 hour RCRA Management Training which covers regulatory requirements for waste management. All training, except for the 8 hour RCRA Management Training, is given as a refresher on an annual basis.

Pollution Prevention Team (PPT) Training:
With the adoption of this SWPPP, additional training for PPT members will include a review of this SWPPP and potential problems unique to the facility. Training will be performed at the time this SWPPP is activated (i.e., baseline training), and will be conducted every two years thereafter. Record of training for PPT members will be entered into Fermilab's TRAIN database and kept for a minimum of three years from the date of training.

Construction Coordinator/ Task Manager Training:
CC/TMs receive training discussing environmental concerns due to construction. Storm drainage and pollution prevention is an integral part of this training.

ESH for Supervisors:
All supervisors receive training on environmental issues. The SWPPP is discussed in this training.

3.8 Implementation Schedule

Additional storm water management practices and spill prevention procedures were not found to be necessary during the initial facility inspection. A list of the current SWMPs is provided in Table 1.

Future changes to storm water pollution prevention procedures and practices found to be necessary through annual inspections, will be implemented immediately for serious threats to surface water, within four weeks for minor changes, and as soon as possible or practicable for other issues that do not pose a serious threat to surface water. Any changes to storm water pollution prevention procedures and practices will constitute a revision of this SWPPP. Table 1 should be updated following the implementation of future proposed SWMPs.

4.0 FACILITY INSPECTION AND REPORTING PLAN

4.1 Inspection Procedures

The lead or designate of the PPT will conduct annual inspections. The inspector will examine each discharge area and complete the attached Annual Storm Water Inspection Report form (Appendix E) to document events (spill, release, etc.) that may have affected storm water quality leaving the site during the past year, and to note corrective actions necessary to remedy the situation. Results of the inspection will be noted on the form as either no action necessary, or as a listing of required improvements and a schedule to implement the improvements in a timely manner. Major facility improvements or procedures must be included in the SWPPP by insertion into the applicable section and noting on the Revision Log (Appendix F).

4.2 Inspection Schedule

Annual inspections will be performed by Lead or designate of the PPT between the months of June and September. Inspections are also required after a release event is identified. A completed copy of the Annual Inspection Form (Appendix E) shall be made for every inspection noting the date of the inspection, the reason for the inspection (scheduled annual or in response to a release), and a brief discussion of the results. Annual Inspection Forms will be kept for a three-year period. See table 1 for details. As of April 1, 2014, quarterly inspections of the permitted outfalls are required one hour after a storm event greater than 0.1 inch at least 72 hours from a previously measureable event. Observation must document: color, odor, clarity, floating, settled or suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. Visual reports can be kept in Appendix G: Quarterly Inspection Log.

4.3 Reporting Procedures and Schedule

The annual report will be completed and results sent to IEPA. Copies of the annual report should be maintained by the facility for a minimum period of three years. If the facility is not current with its Permit compliance timeframes, the report should provide an explanation outlining what attempts the facility is making to become compliant. A copy of the annual inspection form need not be included as an attachment to the annual report. The report should reference Fermilab's permit number IL0026123 and should be submitted electronically to epa.npdes.inspection@illinois.gov as well as to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
Annual Inspection Report
P.O. Box 19276
Springfield, IL 62794-9276

Fermilab personnel will report to IEPA noncompliance events in the annual report which may endanger health or the environment. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s).

Any information must be provided orally within 24-hours from the time the facility becomes aware of the non-compliance .

A written submission must also be provided within five (5) days of the time the facility becomes aware of the circumstances. The written submission should contain:

- A description of the noncompliance and cause;
- The period of noncompliance including exact dates and time;
- 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.

A written report must be submitted to:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
P.O. Box 19276
Springfield, IL 62794-9276

5.0 REVISION SCHEDULE

5.1 SWPPP Revision Procedures

Fermilab shall revise the SWPPP whenever there is a substantial change in construction, operation, or maintenance that may affect the discharge of significant quantities of pollutants to the waters of the state, if the monthly inspections indicate that revision is required, and/or when a new SWPPP is developed and implemented. Revisions will be made as soon as possible and be provided to the state regulatory agency upon request.

This plan will be made available to the state regulatory agency at any reasonable time upon request. The facility may be notified by the regulatory agency that the plan does not meet the requirements of the Permit. After such notification, the facility will have 30 days to make changes to the plan and to submit written certification that the requested changes have been made.

5.2 Revision Log

Revisions shall be documented on the Revision Log provided as Appendix F. The Revision Log will remain a part of this plan for as long as the plan is in effect.

6.0 CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Fermilab

Martha Michels

Signature

7-2-14

Date

Martha Michels

Assistant Director for ESH&Q

TABLES

Table 1
INDUSTRIAL ACTIVITIES POTENTIALLY CONTRIBUTING TO POLLUTION AND BEST MANAGEMENT PRACTICES

Potential Pollutant Sources	Potential Contaminants	Storm Water Management Practices
HWSF	Solvents, etchants, cleaners and degreasers, adhesives, epoxies, coolants, oils lead, PCB contaminated material, unused/partially used commercial chemical products	• When received at HWSF, wastes unloaded directly into the containment area from the transport truck. • Movement of drums in minimized to prevent accidents. • Appropriate fork truck attachments and dollies are used to move waste containers. • Materials are managed in a manner to prevent ignition of combustible material. • Wastes are segregated in storage by hazard type. • Containers are kept closed except when adding, sampling or transferring waste. • Layers of drums are banded together if stacked. • Routine Inspection ▪ Daily: leaks, spills, and containment integrity. ▪ Weekly: container integrity and posted inventory. ▪ Monthly: emergency response and personal protective equipment. ▪ Annual: SWPPP inspection
SWMU 5: Village Machine Shop	Oils and coolants (hazardous and non-hazardous)	• Wastes stored indoors in 55 gallon drums within secondary containment. • Movement of drums in minimized to prevent accidents • Spill kits available to immediately address spill to avoid storm water contamination. • Engineered barrier maintained and inspected annually to prevent storm water exposure to previous releases. • Inspect annually as part of SWPPP Annual Inspection.

Table 1 (cont.)
INDUSTRIAL ACTIVITIES POTENTIALLY CONTRIBUTING TO POLLUTION AND BEST MANAGEMENT PRACTICES

Potential Pollutant Sources	Potential Contaminants	Storm Water Management Practices
SWMU 12: CUB Pipe and Clay Tile Field	Chlorides, chromium, mercury, copper, lead	• Disturbances of the soils within the SWMU are prohibited without EH&S approval and appropriate storm water protections. • Inspect area annually to confirm barrier over SWMU is intact. • Inspect annually as part of SWPPP Annual Inspection.
SWMU 13: Meson Hill Landfill	Asphalt, metal, shingles, cardboard, shielding block (concrete), and grit blast dust	• Maintain cap to eliminate storm water contact with waste. • Inspect cap on an annual basis for damage per SWPPP and quarterly per RCRA permit. • Install storm water runoff when inspection observations indicate potential impacts from erosion. • Inspect annually as part of SWPPP Annual Inspection.
SWMU 14: Outdoor Scrap Steel Storage	Radionuclides, metals	• Stored away from storm water collection areas. • Inspect area on an annual basis to ensure minimal contact with storm water. • Inspect annually as part of SWPPP Annual Inspection.
Rock Stockpile	Rock dust	• Maintain vegetated earthen berm surrounding the stockpile to avoid storm water discharges. • Inspect area annually to confirm vegetated earthen berm around stockpile is intact. • Inspect annually as part of SWPPP Annual Inspection.

Table 1 (cont.)
INDUSTRIAL ACTIVITIES POTENTIALLY CONTRIBUTING TO POLLUTION AND BEST MANAGEMENT PRACTICES

Potential Pollutant Sources	Potential Contaminants	Storm Water Management Practices
Support Areas	Road Salt, oil and grease, diesel, gasoline	• Conduct vehicle maintenance and material/waste storage indoor. • Use tanker containment pad when loading fuel center USTs. • Load and/or unload materials directly to/from warehouses. • Inspect annually as part of SWPPP Annual Inspection.
CHL @ Industrial Center	Compressor oil	• Maintain the oil compressor in good working order. • Provide storm water retention/containment berm under oil compressor. • Inspect oil compressor regularly for condition and annually as part of SWPPP Annual Inspection.
CUB brine storage area	sodium chloride	• Inspect for leaks and condition of tank and fixtures. • Manually observe filling of tank.

Table 2

MATERIAL INVENTORY

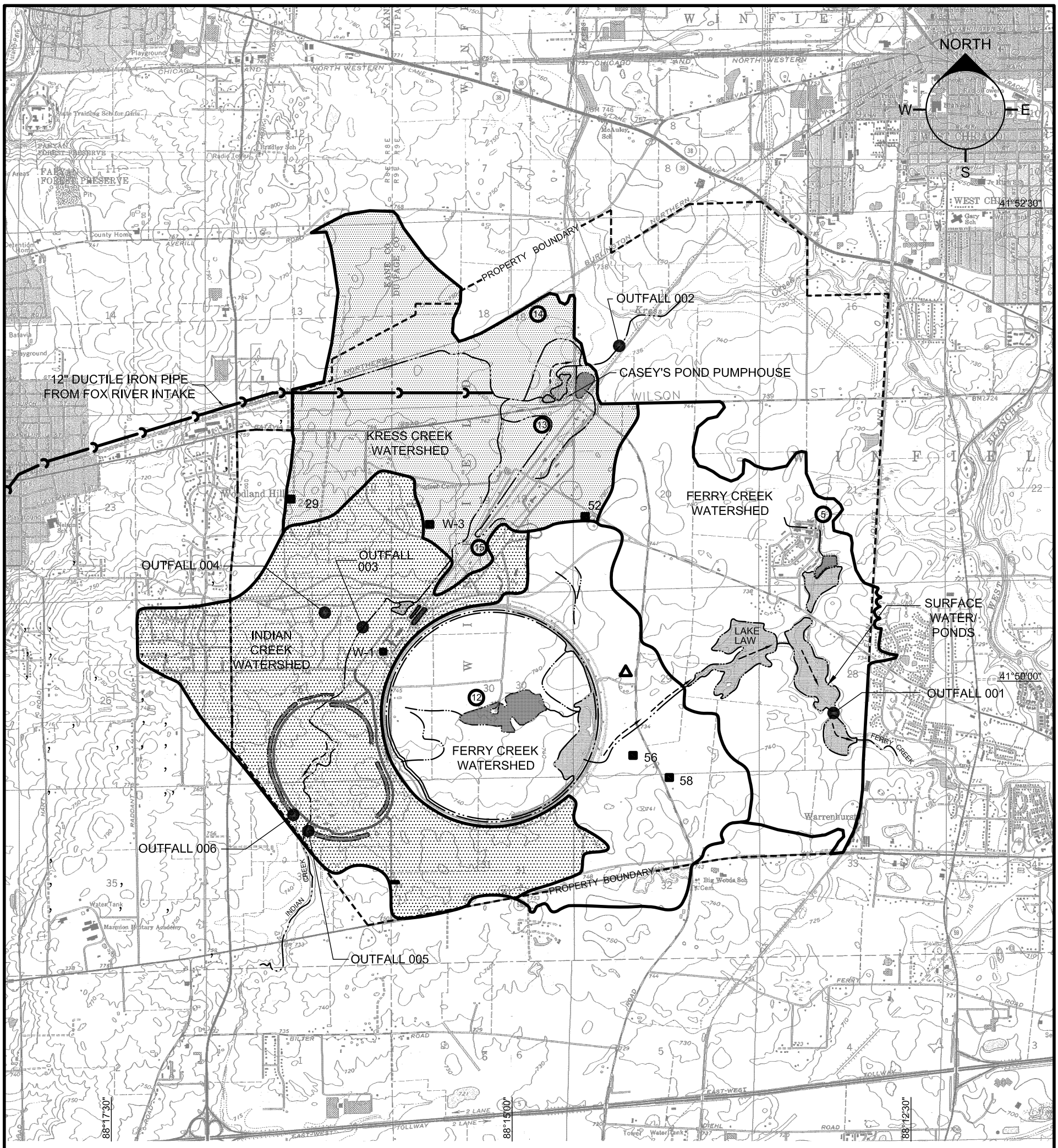
Storage Area Location Description	Materials Stored	Notes (spill prevention controls, potential spill pathway, other)
HWSF	Solvents, etchants, cleaners and degreasers, adhesives, epoxies, coolants, oils lead, PCB contaminated material, unused/partially used commercial chemical products	All sources are secondarily contained and stored indoors. Spill kits/trailer readily available for spill response
SWMU 5: Village Machine Shop	Oils and coolants (hazardous and non-hazardous), TCE/DCE impacted soils	All liquid sources are secondarily contained and stored indoors. Spill kits/trailer readily available for spill response Impacted soil is capped with a concrete barrier to avoid storm water exposure
SWMU 12: CUB Pipe and Clay Tile Field	Chlorides, chromium, mercury, copper, lead	Impacted soils were removed. Drainage is overland to the southeast to Lake Logo.
SWMU 13: Meson Hill Landfill	Asphalt, metal, shingles, cardboard, shielding block (concrete), and grit blast dust	Landfill is capped to eliminate storm water contact with waste material. Drainage ditch flows around the eastern and northern sides of landfill before reaching Casey's Pond.
SWMU 14: Outdoor Scrap Steel Storage	Low-activity Metals	Exposure to storm water is minimized to the extent practicable Materials are stored away from storm water collection areas

Table 2 (cont.)

MATERIAL INVENTORY

Storage Area Location Description	Materials Stored	Notes (spill prevention controls, potential spill pathway, other)
Support Areas	Road salt, diesel fuel, gasoline, oil and grease	Exposure to storm water is minimized to the extent practicable Secondary containment is provided as specified by Fermilab's SPCC Plan Spill kits/trailer readily available for spill response
CHL @ Industrial Center	Compressor Oil	Exposure to storm water is minimized to the extent practicable Exposed storm water is collected in bermed area, not discharged Spill kits/trailer readily available for spill response
CUB brine storage area	Sodium chloride	Salt is delivered indry, bulk form and blown pneumatically from the delivery truck through a 4 inch, positive "Cam-Lok" fitting, directly into the tank. Filling of the tank is observed by personnel.
Rock Stockpile	Excavated dolomite	Exposure to storm water is minimized to the extent practicable Materials are stored away from storm water collection areas Exposed storm water is collected in bermed area, not discharged

FIGURES



LEGEND:

- HAZARDOUS WASTE STORAGE AREA
- SWMU LOCATION
- OUT FALL STRUCTURE
- DIRECTION OF FLOW
- APPROXIMATE PROPERTY BOUNDARY
- FERRY CREEK WATERSHED
- KRESS CREEK WATERSHED
- INDIAN CREEK WATERSHED
- SURFACE WATER/PONDS
- WATERSHED BOUNDARIES
- STREAMS/CHANNELS

DOMESTIC WATER SUPPLIES:

W-3 PRIMARY DRINKING WATER SUPPLY
W-1 SUPPLIES WATER TO THE MAIN SITE SYSTEM WHEN DEMAND IS EXCEEDED AT W-3

WELLS 29, 52, 56, 58 ARE DRINKING WELLS

1" = 2000'-0"
2000 0 2000 4000
SCALE FEET

MAP BASE INFORMATION:

7.5 MINUTE USGS QUADRANGLE MAP
AURORA NORTH, NAPERVILLE, GENEVA
AND WEST CHICAGO, ILLINOIS

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

FERMILAB
NPDES PERMIT REAPPLICATION
PERMIT NO. IL0026123
SITE/VICINITY MAP

DATE: APRIL 7, 2010 ATTACHMENT A REV.

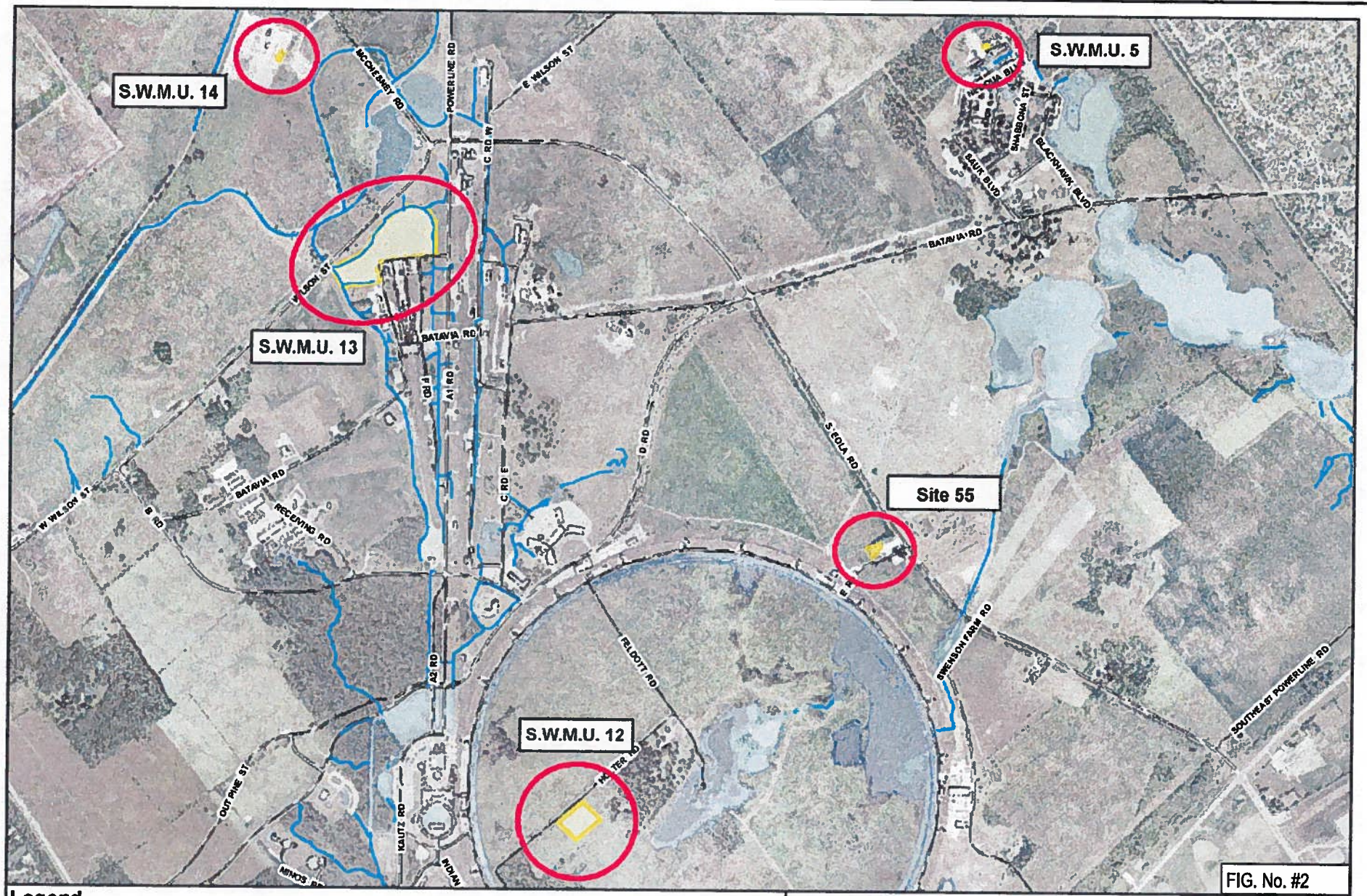


FIG. No. #2

Legend

- Streams
- Ponds
- S.W.M.U
- FIMS

FERMI NATIONAL ACCELERATOR LABORATORY

S.W.M.U./Waste Storage

SCALE: 1"=1680'

Map Created By: B. THOMSON

Date Created: FEB. 4TH, 2010

PROJECT NORTH

DIAGRAM IS F ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Outfalls, Water Features & Buildings

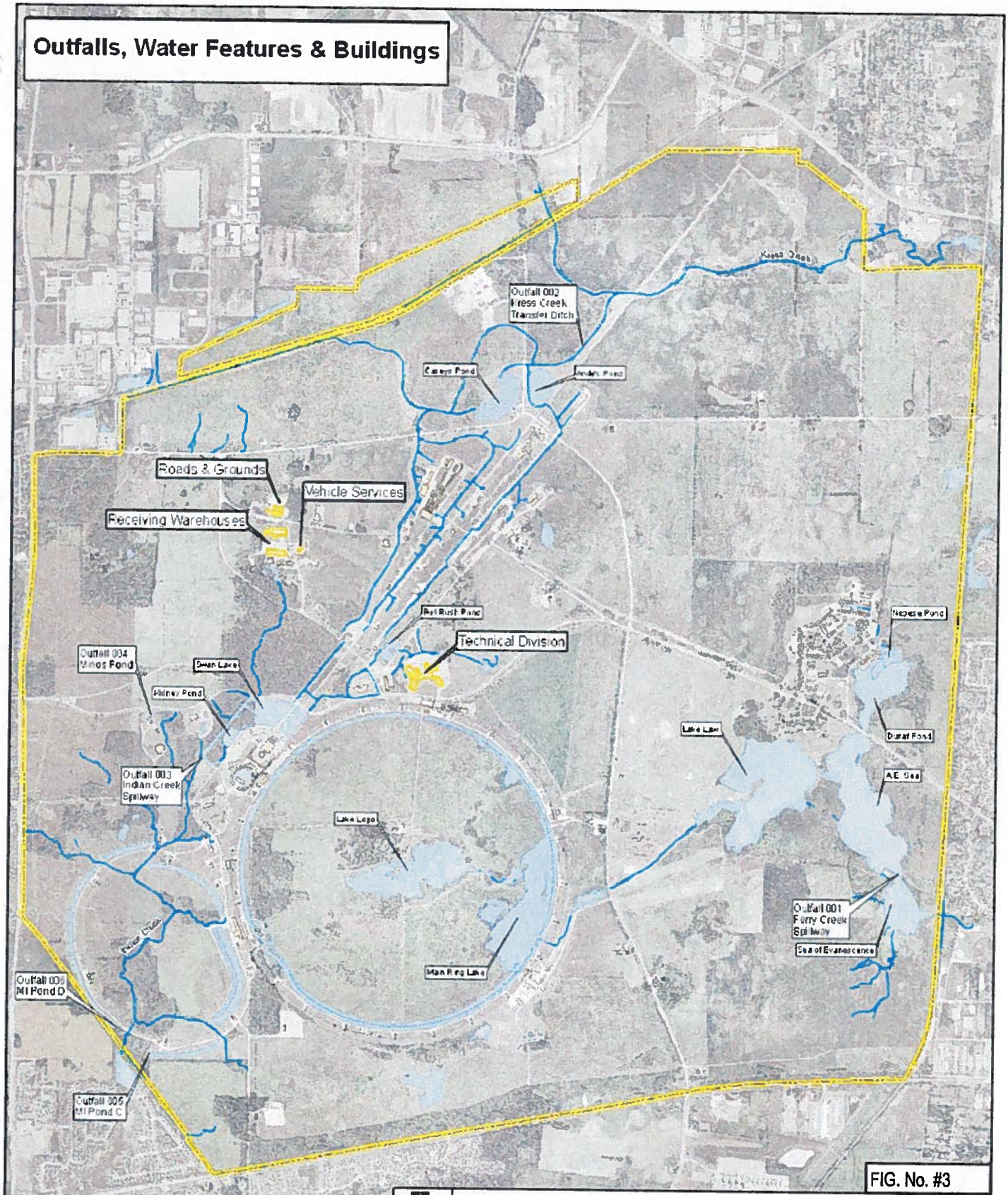


FIG. No. #3

FERMI NATIONAL ACCELERATOR LABORATORY

SCALE: 1"= 2375'	Map Created By	B. THOMSON
	Date Created	May 25TH, 2010

N:\PROJECTS\20...7504\Client Supplied Diagrams\Updated Figs\11097504-FERMI LAB-20100527a.dwg

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES. 1A

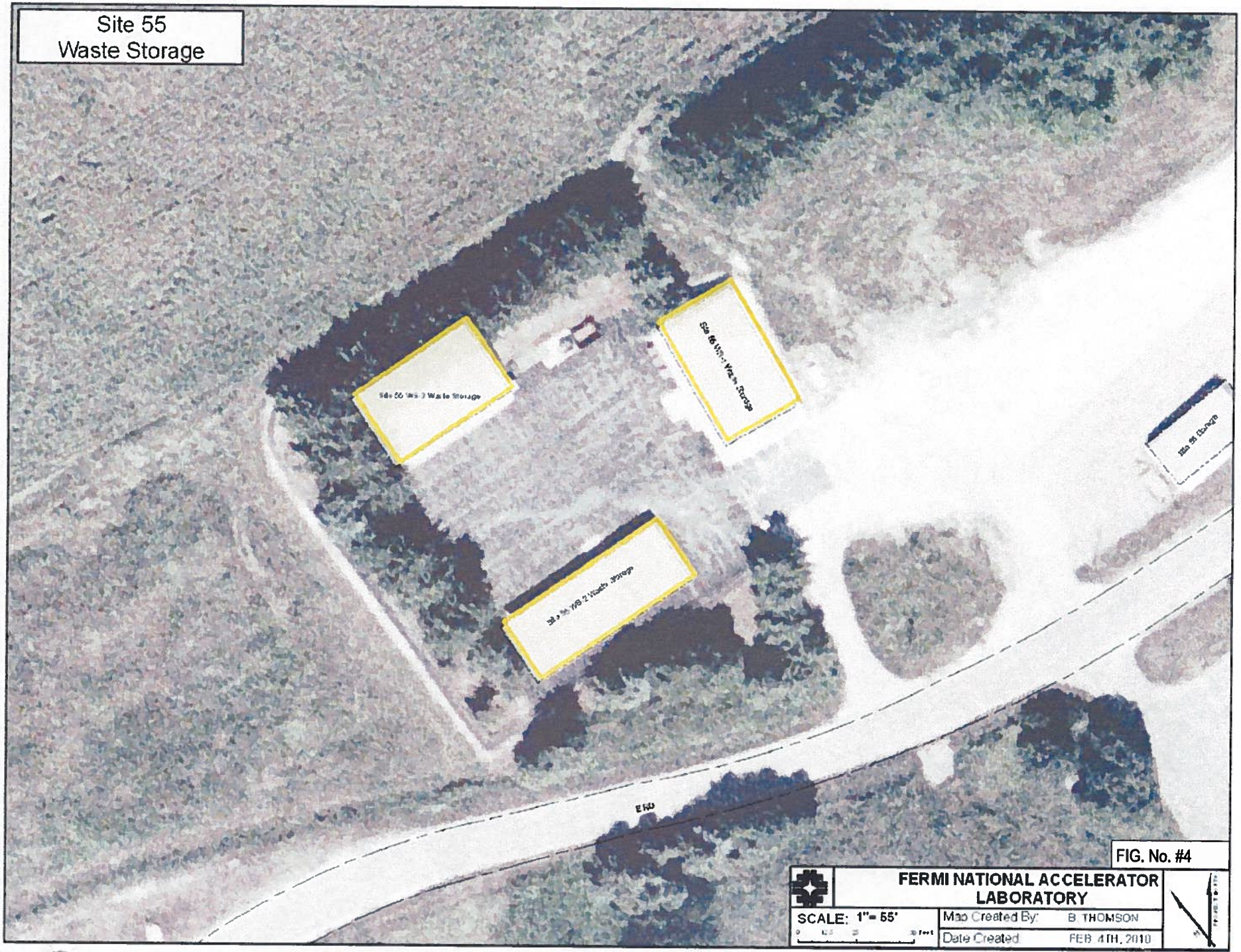


FIG. No. #4

FERMI NATIONAL ACCELERATOR LABORATORY

SCALE: 1"= 55'

Map Created By: B. THOMSON

Date Created: FEB. 4TH, 2010

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DIAGRAM IS F ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

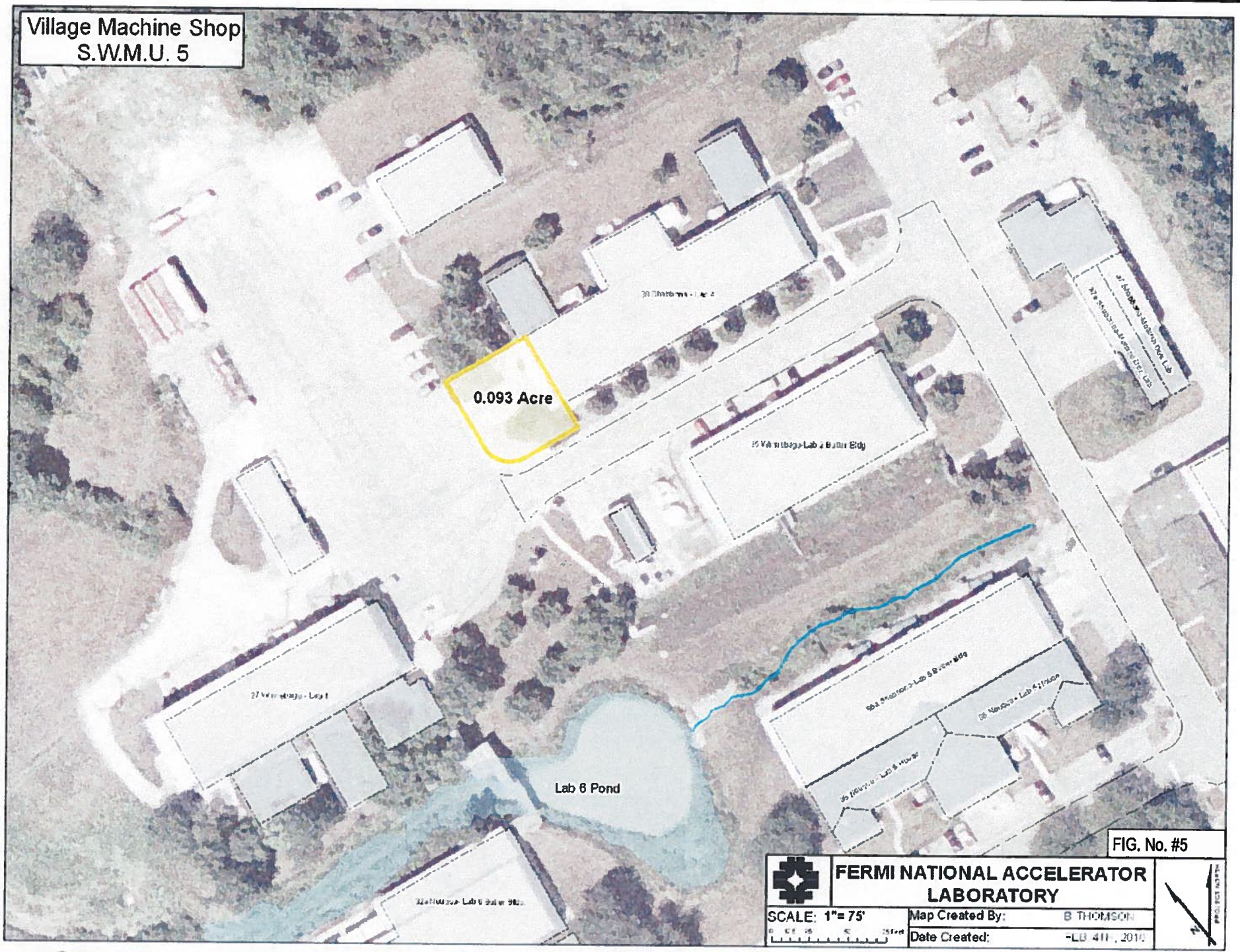

FIG. No. #5

FERMI NATIONAL ACCELERATOR LABORATORY

SCALE: 1"= 75'

Map Created By: B. THOMSON

Date Created: -LB 4th, 2010

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DIAGRAM IS FO ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

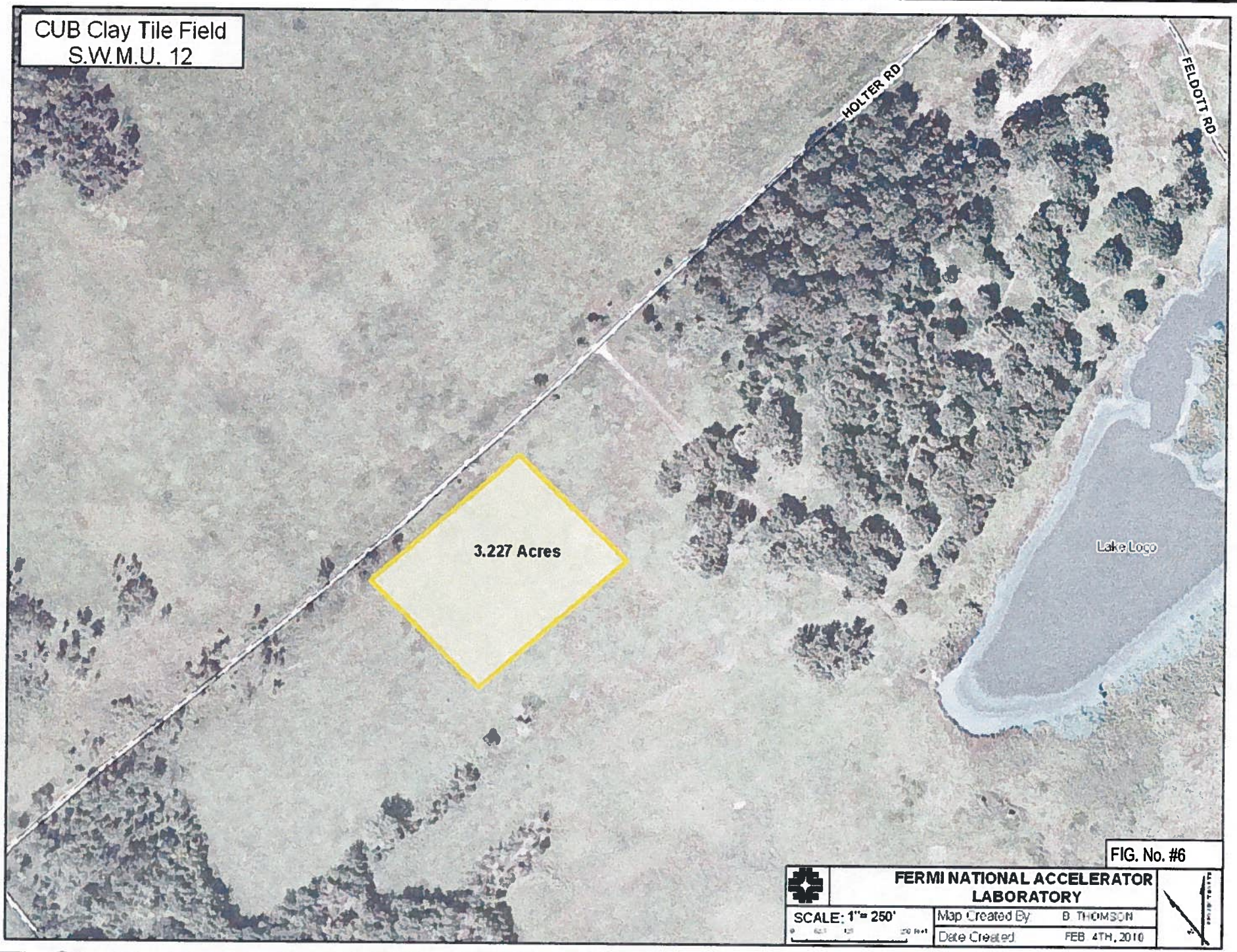

FIG. No. #6

FERMI NATIONAL ACCELERATOR LABORATORY

SCALE: 1"= 250'

Map Created By B. THOMSON

Date Created FEB 4TH, 2010

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DIAGRAM IS FO ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

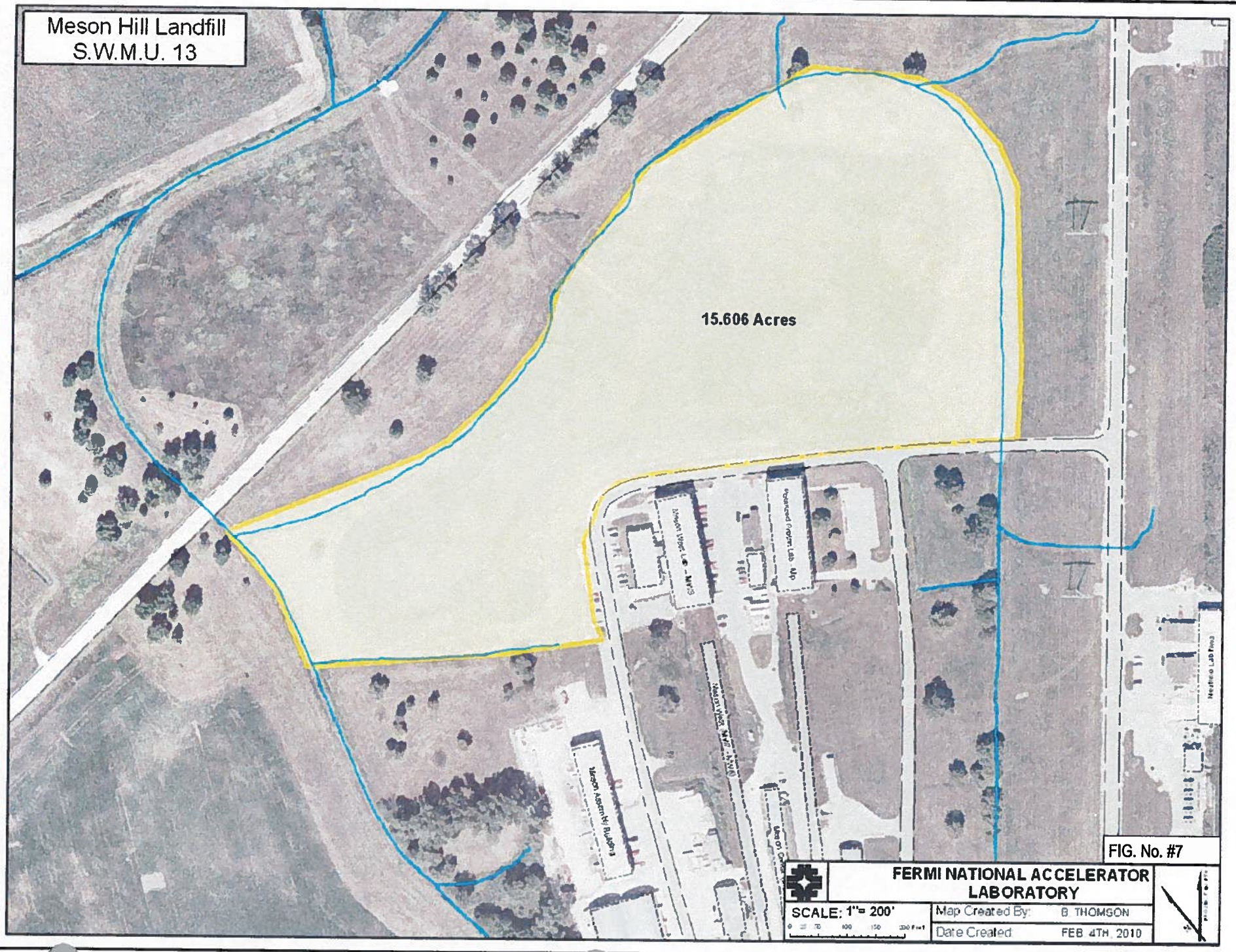

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DIAGRAM IS FO ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

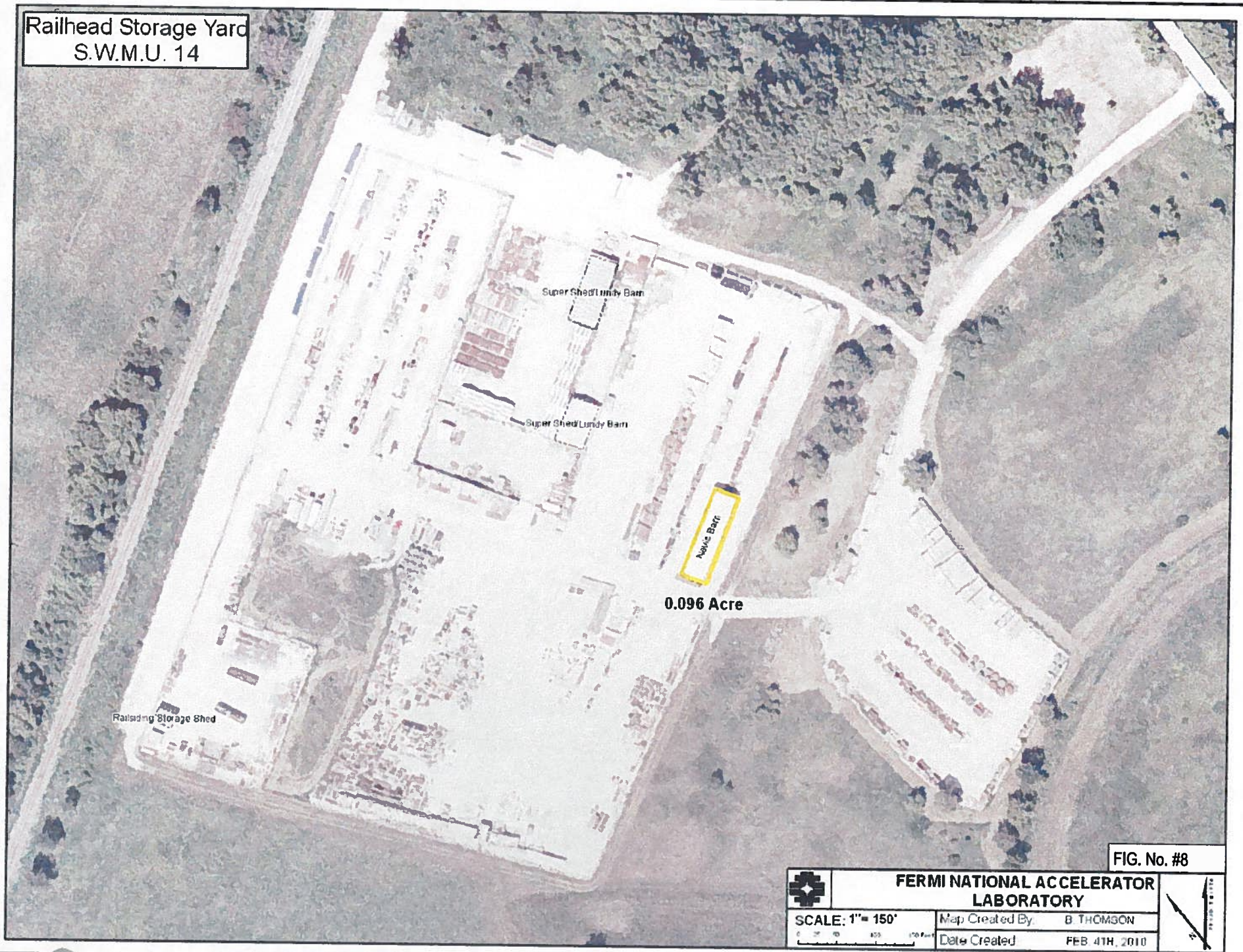

FIG. No. #8

FERMI NATIONAL ACCELERATOR LABORATORY

SCALE: 1"= 150'

Map Created By: B. THOMSON

Date Created: FEB. 4TH, 2010

N:\PROJECTS\2009\11097504\Client Supplied Diagrams\Updated Figs\11097504-FERMI LAB-20100527a.dwg

DIAGRAM IS F[illegible]ERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

Legend

NuMI Rock Stockpile

FIMS

FERMI NATIONAL ACCELERATOR LABORATORY

NuMI rock stockpile
Site 12

SCALE: 1"=100'

0 25 50 100 Feet

Map Created By: B. THOMSON

Date Created: FEB. 11TH, 2010

N PROJECT NORTH

APPENDIX A

NPDES Permit and Addenda

Department of Energy
Fermi Site Office
Post Office Box 2000
Batavia, Illinois 60510

APR 1 2014

Ms. Victoria A. White
Chief Operating Officer
Fermilab
P.O. Box 500
Batavia, IL 60510

Dear Ms. White:

SUBJECT: REISSUED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. IL0026123 FOR NON-CONTACT COOLING WATER AND STORM WATER RUNOFF

Reference: Letter with permit, from A. Keller, Illinois Environmental Protection Agency (IEPA), to Department of Energy, dated March 25, 2014, Subject: Same As Above

Enclosed is the reissued National Pollutant Discharge Elimination System (NPDES) Permit No. IL0026123 issued by IEPA for Non-Contact Cooling Water and Storm Water Discharges from the six outfalls located at the Fermi National Accelerator Laboratory (Fermilab). Please review the conditions under this permit to ensure Fermilab's compliance with those conditions.

The NPDES permit expires on March 31, 2019. If you have any questions, please contact Rick Hersemann, of my staff, at extension 4122.

Sincerely,

for

Michael J. Weis
Site Manager

Enclosure:
As Stated

cc: R. Ortgiesen, w/o encl.
M. Michels, w/encl.
K. Collins, w/encl.

Amber

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829
PAT QUINN, GOVERNOR LISA BONNETT, DIRECTOR

217/782-0610

March 25, 2014

RECEIVED
MAR 28 2014

U.S. Department of Energy
P.O. Box 2000
Batavia, Illinois 60510

Re: Fermilab
NPDES Permit No. IL0026123
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge. In regards to your February 18, 2014 letter, the Agency has the following response:

1. The flow rates for each outfall listed on page 2 of the permit shall remain the same. These flow rates are based on pump rating and not the average flow that the site has discharged in the last five years.

2. The "*" for Total Residual Chlorine on page 2 of the permit now states that testing for Total Residual Chlorine is only required at outfalls 002 and 003.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (NetDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in NetDMRs, more information can be found on the Agency website, http://www.epa.state.il.us/water/net-dmr/index.html. If your facility is not registered in the NetDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Mark E. Liska at 217/782-0610.

Sincerely,

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:13121102.docx

Attachment: Final Permit

cc: Records
Compliance Assurance Section
Des Plaines Region
Billing
CMAP

#6 70

NPDES Permit No. IL0026123

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: March 31, 2019

Issue Date: March 25, 2014
Effective Date: April 1, 2014

Name and Address of Permittee:

U.S. Department of Energy
P.O. Box 2000
Batavia, Illinois 60510

Facility Name and Address:

Fermilab
Kirk Road and Pine Street
Batavia, Illinois 60510
(DuPage/Kane County)

001 Non-Contact Cooling Water and Stormwater Runoff	Ferry Creek
002 Non-Contact Cooling Water and Stormwater Runoff	Kress Creek
003 Non-Contact Cooling Water and Stormwater Runoff	Indian Creek
004 Non-Contact Cooling Water and Stormwater Runoff	Indian Creek
005 Non-Contact Cooling Water and Stormwater Runoff	Indian Creek
006 Non-Contact Cooling Water and Stormwater Runoff	Indian Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:MEL:13121102.docx

NPDES Permit No. IL0026123

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharge(s) shall be monitored and limited at all times as follows:

Outfall: 001 Non-Contact Cooling Water and Stormwater Runoff (DAF = 2.48 MGD)
002 Non-Contact Cooling Water and Stormwater Runoff (DAF = 4.30 MGD)
003 Non-Contact Cooling Water and Stormwater Runoff (DAF = 0.6 MGD)
004 Non-Contact Cooling Water and Stormwater Runoff (Intermittent Discharge)
005 Non-Contact Cooling Water and Stormwater Runoff (Intermittent Discharge)
006 Non-Contact Cooling Water and Stormwater Runoff (Intermittent Discharge)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF) 30 DAY AVERAGE	LOAD LIMITS lbs/day DAF (DMF) DAILY MAXIMUM	CONCENTRATION LIMITS mg/L 30 DAY AVERAGE	CONCENTRATION LIMITS mg/L DAILY MAXIMUM	SAMPLE FREQUENCY	SAMPLE TYPE
Flow	See Special Condition 1				Measure When Monitoring	
pH	See Special Condition 2				1/Month	Grab
Temperature	See Special Condition 3				1/Month	Single-Reading
Total Residual Chlorine*				0.05	1/Month	Grab
Tritium				Monitor Only	1/Month	Grab

*Total Residual Chlorine sampling is only required at outfall 002 and 003. Total Residual Chlorine sampling is not required at outfall 001, 004, 005 or 006. See also Special Condition 7.

NPDES Permit No. IL0026123

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum on the monthly Discharge Monitoring Report.

SPECIAL CONDITION 2. The pH shall be in the range 6.5 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. This facility is not allowed any mixing with the receiving stream in order to meet applicable water quality thermal limitations. Therefore, discharge of wastewater from this facility must meet the following thermal limitations prior to discharge into the receiving stream.

A. The discharge must not exceed the maximum limits in the following table during more than one percent of the hours in the 12 month period ending with any month. Moreover, at no time shall the water temperature of the discharge exceed the maximum limits in the following table by more the 1.7° C (3° F).

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
F	60	60	60	90	90	90	90	90	90	90	90	60
C	16	16	16	32	32	32	32	32	32	32	32	16

B. In addition, the discharge shall not cause abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.

C. The discharge shall not cause the maximum temperature rise above natural temperatures to exceed 2.8° C° (5° F).

D. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 5. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/net-dmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 6. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 7. All samples for total residual chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

Special Conditions

SPECIAL CONDITION 8. For the purpose of this permit, the discharges outfalls 001, 002, 003, 004, 005, and 006 are limited to non-contact cooling water, and storm water, including storm water associated with industrial activity, and shall be free from process and other wastewater discharges. In the event that the permittee shall require the use of water treatment additives, the permittee must request a change in this permit in accordance with the Standard Conditions -- Attachment H.

SPECIAL CONDITION 9.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

   1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

      Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

   2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

      For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.

   Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.

D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.

E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:

   1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.

   2. A site map showing:

      i. The storm water conveyance and discharge structures;

      ii. An outline of the storm water drainage areas for each storm water discharge point;

      iii. Paved areas and buildings;

      iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate

significant quantities of dust or particulates.

v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);

vi. Surface water locations and/or municipal storm drain locations

vii. Areas of existing and potential soil erosion;

viii. Vehicle service areas;

ix. Material loading, unloading, and access areas.

x. Areas under items iv and ix above may be withheld from the site for security reasons.

3. A narrative description of the following:

i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;

ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;

iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;

iv. Industrial storm water discharge treatment facilities;

v. Methods of onsite storage and disposal of significant materials.

4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.

5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.

6. A summary of existing sampling data describing pollutants in storm water discharges.

F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:

1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.

2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.

3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill cleanup equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.

5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:

i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm

water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.

ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.

iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.

iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.

v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.

vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspirate runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.

6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high potential for significant soil erosion. The plan shall describe measures to limit erosion.
7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.

8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.

G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.

H. Quarterly Visual Observation of Discharges - The requirements and procedures for quarterly visual observations are applicable to all outfalls covered by this condition.

1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.

2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measureable (greater than 0.1 inch rainfall) storm event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.

3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and

time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.

5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).

6. The visual observation documentation shall be made available to the Agency and general public upon written request.

I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.

J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated there under, and Best Management Programs under 40 CFR 125.100.

K. The plan is considered a report that shall be available to the public at any reasonable time upon request.

L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights there under.

O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.

P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.

Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency at epa.npdes.inspection@illinois.gov. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public

document that shall be available at any reasonable time upon request.

S. The first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. The permittee shall notify any regulated small municipal separate storm sewer owner (MS4 Community) that they maintain coverage under an individual NPDES permit. The permittee shall submit any SWPPP or any annual inspection to the MS4 community upon request by the MS4 community.

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply**. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **Duty to reapply**. 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. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **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.

(4) **Duty to mitigate**. The permittee shall take all reasonable steps to minimize or prevent any discharge 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 conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions**. This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. 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) **Property rights**. This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information**. The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

(a) 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 this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) 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 purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) 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 this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

(a) **Application.** All permit applications shall be signed as follows:

(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation:

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

(c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(12) **Reporting requirements.**

(a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or

(2) 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 pursuant to 40 CFR 122.42 (a)(1).

(3) 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.

(b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.

(d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting**. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 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 time; 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. The following shall be included as information which must be reported within 24-hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(2) Any upset which exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance**. The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **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 Agency, it shall promptly submit such facts or information.

(13) **Bypass**.

(a) Definitions.

(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(2) Severe property damage means 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.

(b) 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 (13)(c) and (13)(d).

(c) Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(d) Prohibition of bypass.

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) 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

(iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset**.

(a) Definition. Upset means 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.

(b) 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 (14)(c) 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.

(c) 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:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).

(4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(15) **Transfer of permits**. Permits may be transferred by modification or automatic transfer as described below:

(a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

(b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically

transferred to a new permittee if:

(1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and

(3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act 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; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(4) The level established by the Agency in this permit.

(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 NPDES permit application.

(17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to 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.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The 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 this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 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 4 years, or both.

(24) The 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 non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

(28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

APPENDIX B

Record of Significant Spills and Leaks

Appendix B: RECORD OF SIGNIFICANT SPILLS AND LEAKS

Spill #	Date	Spill or Leak	Location	Material(s)	Quantity
001	1981	Leak	HWSF Site 55	Cupric fluoborate	180 Gallons

Circumstances of Discharge:

The waste was inappropriately transferred from 36 – 5 gallon polyethylene containers into 4 – 55 gallon steel drums which were stored on a pallet about 40 feet south of building WS-1 on the gravel hardstand. The acidic cupric fluoborate ate through the steel drum releasing the entire volume of waste onto the ground.

Response Measures Taken:

The cleanup involved excavating an area approximately 12 x 40 x 2.5 feet resulting in the shipment of approximately 45 cubic yards of contaminated gravel and soil off site for disposal. The cleanup was completed based on copper analytical results of the several samples taken from the bottom and sides of the excavation.

Spill #	Date	Spill or Leak	Location	Material(s)	Quantity
002	1997	Leak	SWMU 5: Village Machine Shop	TCE, DCE	Unknown

Circumstances of Discharge:

Leakage and drips from normal dispensing of solvents used in the machine shop. No significant spill or discharge at a certain time.

Response Measures Taken:

Soil samples were collected in the area which indicated impacts of TCE and DCE. A concrete pad was permanently installed over the contaminated material and recorded on the Fermilab deed.

Appendix B: RECORD OF SIGNIFICANT SPILLS AND LEAKS (cont.)

Spill #	Date	Spill or Leak	Location	Material(s)	Quantity

Circumstances of Discharge:

Response Measures Taken:

APPENDIX C

Storm Water Sampling Log / Analytical Data

APPENDIX C: STORM WATER SAMPLING EVENT SUMMARY

Sampling Date	Discharge Type (hydrostatic, water pipeline, etc.)	Location	Analytes	Laboratory
12/13/1991	Outfall	001, 002, 003	Temp, BOC, TOC, COD, Total N, Nitrate, Nitrite, Oil/Grease, pH, Total Phosphorus, TSS, Soluble Phosphorus	Arro Laboratory, Joliet, IL
02/26/1992	Outfall	001, 002, 003	Temp, BOC, TOC, COD, Total N, Nitrate, Nitrite, Oil/Grease, pH, TSS	Arro Laboratory, Joliet, IL
08/25/1992	Outfall	001, 002, 003	Temp, BOC, TOC, COD, Total N, Nitrate, Nitrite, Oil/Grease, pH, TSS	Arro Laboratory, Joliet, IL
04/26/1993	Outfall	001, 002, 003	Tritium, Gross Alpha	TMA Eberlin, Albuquerque, NM
04/16/1993	Sheeting Run off	HSWF: Site 55	As, BOD, Cd, Cr, Pb, Hg, Total N, N as Ammonia, Nitrate, Nitrite, Oil & Grease, pH, TSS, Ba, Se, Ag, Ethylene glycol, Total Organic Halide, PCBs	Arro Laboratory, Joliet, IL IEA Laboratory, Schaumburg, IL
04/16/1993	Sheeting Run off	SWMU 12: CUB Pipe and Clay Tile Field	As, BOD, Cd, Cr, Pb, Hg, Total N, N as Ammonia, Nitrate, Nitrite, Oil & Grease, pH, TSS, Ba, Se, Ag, Total Organic Halide, Gross Alpha, Gross Beta	Arro Laboratory, Joliet, IL TMA Eberlin, Albuquerque, NM
04/16/1993	Sheeting Run off	SWMU 13: Meson Hill Landfill	As, BOD, Cd, TOC, COD, Cr, Pb, Hg, Total N, N as Ammonia, Nitrate, Nitrite, Oil & Grease, pH, TSS, Ba, Se, Ag	Arro Laboratory, Joliet, IL

APPENDIX D

SWPPP Pollution Prevention Team

Appendix D: SWPPP POLLUTION PREVENTION TEAM
FERMILAB

Team Member	Title	Responsibility
Katie Kosirog	ESH Specialist	Lead
Eric Mieland	ESH Specialist	Maintenance Team
Dave Hockin	ESH Specialist	RCRA/ SWMU Compliance Coordinator
Amber Kenney	ESH Specialist	Maintenance Team
Sylvia Wilson	ESH Specialist	Maintenance Team
Angela Aparicio	ESH Specialist	Maintenance Team
Bridget Iverson	ESH Specialist	Maintenance Team
Amy Pavnica	ESH Specialist	Maintenance Team
Rod Walton	ESH Specialist	Maintenance Team

APPENDIX E

Annual Inspection Form

Appendix E: ANNUAL INSPECTION FORM

Site Name: Fermi National Accelerator Laboratory

Reported By: _____

Date: _____ Time _____

Purpose of Inspection: ❒ Annual ❒ Spill/Release ❒ Reinspection

Weather During 24 Hours Prior to Inspection _____

Current Site Status:

SITE AREA	CURRENT CONDITIONS (satisfactory? y/n)	OBSERVATIONS
HWSF: Site 55		
SWMU 5: Village Machine Shop		
SWMU 12: CUB Pipe and Clay Tile Field		
SWMU 13: Meson Hill Landfill		
SWMU 14: Railhead Storage Area		
Rock Stockpile		
Support Areas		

CHL @ Industrial Center		
Outfall Structures		
CUB brine storage area		

Unusual occurrences that have happened since the last annual inspection:

☐ Yes ☐ No Spills
☐ Yes ☐ No SWMU Closure
☐ Yes ☐ No Fire Fighting Activities
☐ Yes ☐ No Other - Describe: _____
☐ Yes ☐ No Natural Disasters
☐ Yes ☐ No Change in facility operation
☐ Yes ☐ No Change in SWPPP critical site areas

_____

If any of the above are **Yes**, describe below:

_____

_____

General Condition of Site: (If you answer no to any of the following questions, corrective action may be required)

☐ Yes ☐ No ☐ N/A Reportable quantity releases (spills) since last inspection?
☐ Yes ☐ No ☐ N/A Paved areas free of visible contaminants?
☐ Yes ☐ No ☐ N/A Unpaved areas free of visible contaminants or staining?
☐ Yes ☐ No ☐ N/A Sheen on standing water?
☐ Yes ☐ No ☐ N/A Spill response materials present and complete?

Condition of the following areas: (Make note of any potential storm water contaminant sources or obstructions)

HWSF – Site 55:

☐Yes ☐ No Area in good condition/No indications of leaks or spills?
☐ Yes ☐ No All product drums are closed and stored in indoor containment area?
☐Yes ☐ No Containment and epoxy sealant in good physical condition?
☐Yes ☐ No Spill kits/ absorbent materials properly stocked?

Describe any corrective actions taken for issues within this discharge area: _____

_____

_____

SWMU 5 – Village Machine Shop:

☐Yes ☐ No Any signs suggesting a release or spill of stored material?
☐Yes ☐ No All drums stored indoors in secondary containment?
☐Yes ☐ No Concrete barrier in good condition?
☐Yes ☐ No Spill kit / absorbent materials properly stocked?

Describe any corrective actions taken for issues within this discharge area: _____

_____

_____

SWMU 12 – CUB Pipe and Clay Tile Field:

☐Yes ☐ No Evidence indicating storm water contact with impacted material?
☐Yes ☐ No Signs of erosion?

Describe any corrective actions taken for issues within this discharge area: _____

_____

_____

SWMU 13 – Meson Hill Landfill:

☐Yes ☐ No Landfill cap in good condition?
☐Yes ☐ No Any sign of leachate discharge from landfill?
☐Yes ☐ No Any sign of damage to cap overburden (lost of vegetation, slumping, channeling of drainage)?

Describe any corrective actions taken for issues within this discharge area: _____

SWMU 14 – Railhead Storage Yard:

☐Yes ☐ No All materials stored away from ponding and drainage areas?
☐Yes ☐ No Any signs suggesting a release or spill of stored material?

Describe any corrective actions taken for issues within this discharge area: _____

Rock Stockpile:

☐Yes ☐ No Retention area in good condition?
☐Yes ☐ No Any signs suggesting unintentional release of water?

Describe any corrective actions taken for issues within this discharge area: _____

Support Areas:

☐Yes ☐ No Areas in good condition/No indications of leaks or spills?
☐ Yes ☐ No All drums are closed and stored in indoor containment area?
☐Yes ☐ No Salt dome in good physical condition?
☐Yes ☐ No Spill kits/ absorbent materials properly stocked?
☐Yes ☐ No Fuel tanker unloading containment in good physical condition?

Describe any corrective actions taken for issues within this discharge area: _____

CHL @ Industrial Center:

☐Yes ☐ No Area in good condition/No indications of leaks or spills?
☐ Yes ☐ No Oil compressor skid in good operating condition?
☐Yes ☐ No Storm water containment berm in good physical condition?
☐Yes ☐ No Spill kits/ absorbent materials properly stocked?

Describe any corrective actions taken for issues within this discharge area: _____

Outfall Structures:

❒Yes ❒ No All outfall structures in good condition?
❒Yes ❒ No Any signs suggesting unintentional release of water?

Describe any corrective actions taken for issues within this discharge area: _____
_____
_____

CUB brine storage area:

❒Yes ❒ No Area in good condition/No indications of leaks or spills?
❒ Yes ❒ No Tank and fixtures in good condition?

Describe any corrective actions taken for issues within this discharge area: _____
_____
_____

APPENDIX F

Revision Log

Appendix F: REVISION LOG

Date of Revision	Inspector Name	Section of Plan	Nature of Revision
4/4/2013	Katie Kosirog	Forms and Sec. 2 and maps	Added CUB Brine Tank
8/23/2013	Katie Kosirog	Appendices	Removed Appendix of Training Record. This information is stored in Fermilab's TRAIN database.
6/25/2014	Katie Kosirog	Sec. 4.2 and appendices	Minor revisions/date changes to reflect permit renewal; added quarterly inspection log

APPENDIX G

Quarterly Inspection Log

Appendix G: Quarterly Inspection Log				
Date	By	Location	Storm event	Nature of discharge and visual observation of storm water
5/9/14	Kk/ek	Outfalls 001-006	0.89”	no observation of SW pollution present
8/11/14	KK/EK	Outfalls 001-006	1.41”	No SW pollution observed
12/24/15	KK/EK	Outfalls 001-006	0.28	No SW pollution observed
3/25/15	KK/EK	Outfalls 001-006	0.28	No SW pollution observed
6/8/15	EK	Outfalls 001-006	0.41”	No SW pollution observed
7/7/15	EK	Outfalls 001-006	1.42	No SW pollution observed
10/28/15	EK	Outfalls 001-006	0.34”	No SW pollution observed