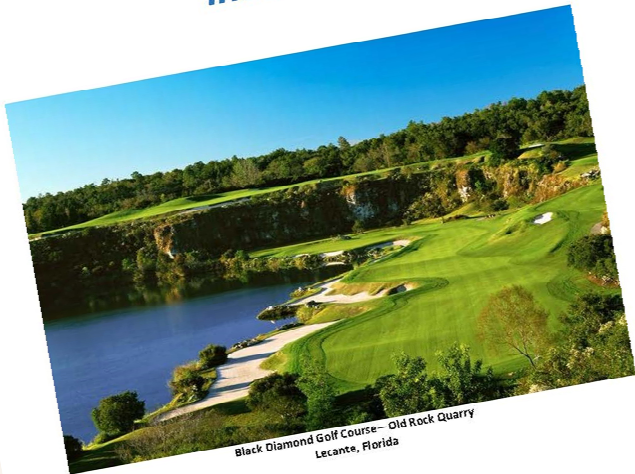


**Illinois Environmental & Permit
Programs Guidebook for the Mining
Industry**



Black Diamond Golf Course— Old Rock Quarry
Lecanto, Florida

**Illinois Association of Aggregate Producers
Environmental Committee
2021**

ENVIRONMENTAL COMPLIANCE FOR AGGREGATE OPERATORS

Surface-mined Land Conservation and Reclamation Act (SMLCRA)

All operators
engaging in
non-coal
surface mining

Stone, clay,
sand, gravel,
peat, silica etc.

Five copies of the application (MLCR-1).

Two copies to county clerk.

County clerk signs the MLCR-1A form.

Forward three (3) copies of the application and the signed MLCR-1A to:

Illinois Department of Natural Resources
Office of Mines and Minerals
Explosives and Aggregate Division
One Natural Resources Way
Springfield, IL 62702-1271

Aggregate Permit Application



Explosives and Aggregate Division

Safe handling, transportation, storage,
and usage of explosive materials.

Routine inspections of all permitted
sites at all reasonable times.

Explosive license is required.

Illinois Explosives Act



Reasonable rehabilitation of the affected land to useful purposes.

Minimum impact on the surrounding areas.

Permit must contain a reclamation plan.

Reclaimed land uses include pastures, forests, wildlife areas, and residential, recreational, and industrial sites.

Grading and revegetation of areas to the required slopes must be completed within three years after the expiration of the active use of the land.

Bond held by the EAD until successful reclamation has been completed.

Reclamation



Required by Illinois counties and or municipalities/cities.

Public hearings are held, and comments are considered.

County Board votes to approve or dismiss the permit application.

Restricted hours of operation, blasting and, lighting restrictions, prescribed vegetation.

Special Use Permits





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Construction in Wetlands and Waterways

- “Waters of the U.S.” impacts, including wetlands require a permit from the USACE under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.
- Regulated activities include those that place fill in wetlands or waterways.
- Some counties and municipalities have wetland and waterway protections.
- Mitigation may be required for impact.





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Types of Permits

Nationwide permit (NWP)

- General Permit authorizing certain activities throughout the US.
- Only valid if terms and conditions are met, including Regional conditions, general conditions, and water quality certification conditions.
- Program is currently being reauthorized (2021/2022).

Regional General Permit (RP)

- A type of general permit authorizing general categories of fill activities when the activities are similar and nature and cause minimal environmental impact.
- Regional permits reduce duplication of regulations by state and federal agencies.

Individual Permit (IP)

- Used for projects that do not qualify for Nationwide or Regional permits
- Requires Public Notice
- Requires separate Illinois EPA water quality certification



Northern Illinois Waterway
Photo Credit: A. Klunenberg



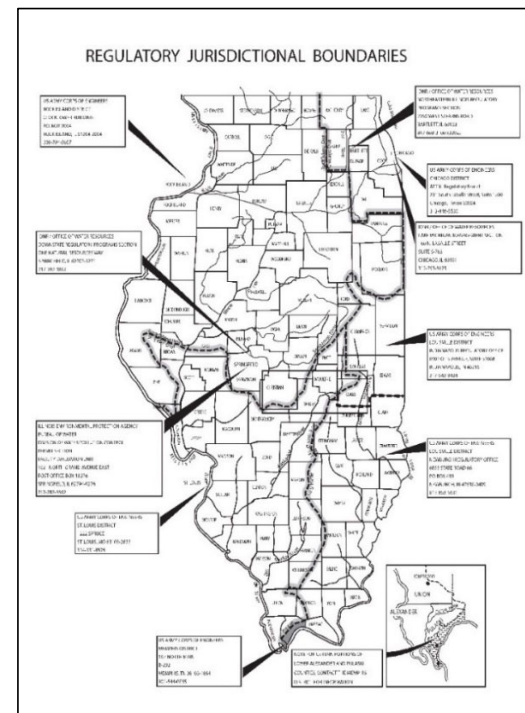
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Construction in Wetlands and Waterways

Recommended steps

1. Obtain a wetland delineation.
2. Determine whether your project will impact wetlands or waterways.
3. Determine whether on-site wetlands are jurisdictional.
4. Apply for a permit or submit a pre-construction notification to the appropriate USACE district if needed





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Endangered Species Coordination

State Listed Species

- Consultation with the IDNR through the online EcoCAT.
- Consultation will determine species that may be on-site and whether further coordination may be needed.

Federally Listed Species

- Online review (USFWS IPAC) to determine whether Federally listed species may be present.

Impacts

- Impacts to T&E species require an Incidental Take permit
- If a take permit is required, there may be conditions that would affect operations
- Conditions may include ecosystem restoration plans or species relocations



Eastern Prairie Fringed Orchid
(Federally Threatened)

Photo Credit: A. Klunenberg

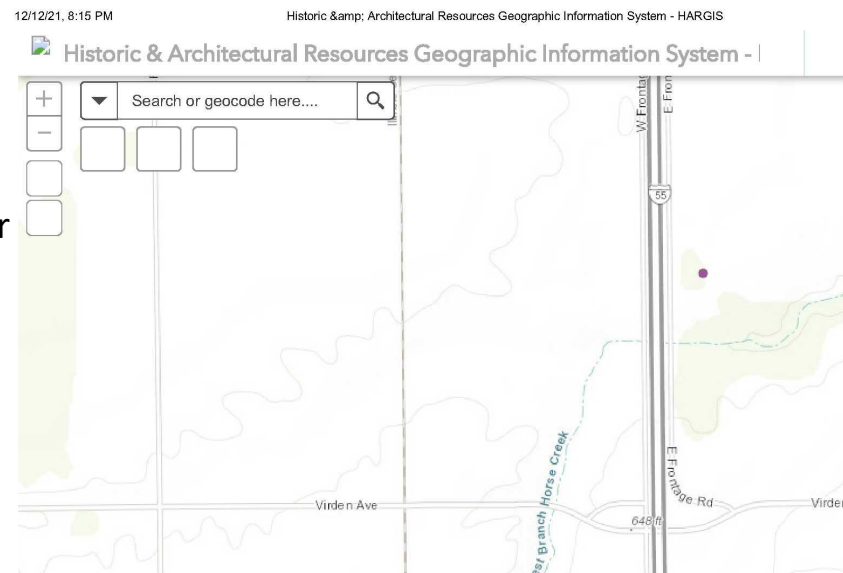


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State Historic Preservation

- Consultation is required to evaluate historic, architectural, and archeological resources.
- Applications for mining, NPDES, or wetland/waterway permits will trigger consultation.
- The discovery of artifacts, human remains, or a historic structure could trigger a shutdown of operations.
- If human remains are discovered, the coroner's office must be contacted.



Property on the National Register

Historic & Architectural Resources Geographic
Information System – Illinois State Historic
Preservation Office

Air Permitting

- All sources of air emissions must be permitted with the Illinois EPA
- Permitting is based on potential emissions and actual emissions
- Major Source Emission Levels vs. Minor Source Emission Levels
- Criteria Air Pollutants – 100 tpy in most cases
- HAP's – 10 tpy for a single HAP/ 25 tpy for combined HAP's

Air Permitting – Types of Permits

- Title V/CAAPP – Potential and Actual emission levels exceed major source emission levels
- FESOP – Potential emission levels exceed major source levels, but actual emission levels are below major source levels
- Lifetime – Potential and actual emission levels are below major source levels
- ROSS – Actual emissions are below five tons per year

Air Permitting – Application Details

- Appropriate Forms and Fees
- Emission Calculations
 - AP-42
 - Mass Balance
- Fugitive Dust Control Plan
- Rule Applicability Analysis
 - State Regulations
 - NSPS/NESHAP Federal Standards
- Permit Review

F r q f u h w h # # D v s k d a w #
U h f | f o l q j



Dust x d o w |

Air Quality Permits, from various agencies in Illinois, are required for stationary and portable crushing plants. Depending on the amount of particulate matter (PM) produced from crushing, screening and transfer points, Illinois EPA requires producers obtain:

- Lifetime Operating Permit for sources that emit more than five (5) tons of PM per year.
 - Registration of Smaller Sources Permit (ROSS) if under five (5) tons of PM per year.
- See previous Air Quality Permits section in this document for more information on these permits

In addition to State air quality regulations, some counties and municipalities may have permitting requirements. These requirements will vary from county-to-county and city-to-city, so it is prudent to check with your local regulatory authorities to ensure you comply with any air quality permitting rules and conditions they may have.

To ensure compliance with Air Quality Regulations, Illinois Environmental Protection Agency (IEPA) requires opacity testing to be conducted on all newly permitted crushers, screening units and conveyors. For more information on Illinois Air Quality Permitting and Compliance [HERE](https://bit.ly/rosspermit) <https://bit.ly/rosspermit> and [HERE](http://bit.ly/epamethod9) <http://bit.ly/epamethod9>

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Both recycled asphalt and concrete are used in Illinois Department of Transportation (IDOT) and commercial projects.

- **IDOT Approved Material:** Meets all IDOT quality testing requirements and is produced in accordance with Illinois Aggregate Gradation Control System (IAGCS).

IDOT regulates stockpiles of broken concrete and asphalt which may be approved for its projects. Producers seeking approval of their materials must ensure:

- Incoming broken concrete and broken asphalt is not contaminated with soil or foreign matter.
- Rebar is only allowed to protrude 4 inches from the concrete.
- A small amount of soil embedded in the base of the concrete slab is acceptable and a small amount of RAP leftover from milling is also acceptable.
- No excavated stone, tile, soil, bricks, slabs of HMA pavement, leftover wet concrete or washout from mixer trucks are allowed. More information [HERE](http://bit.ly/idotapp) <http://bit.ly/idotapp>

From the Field to the Road

Commercial Recycled Material: Is used on private projects and is not IDOT certified.

- Check with your local county and municipality as to whether authorization is needed to receive asphalt and concrete and if there are any restrictions on stockpiling material for future use.
- If material is not sold and a CCDD facility is located on the same property, the recycled material is allowed to go into the CCDD.

WATER PERMITS

- USEPA requires a National Pollutant Discharge Elimination System (NPDES) permit for discharge of water which may contain a pollutant
- Illinois EPA administers the federal NPDES permit program
- Permits can be issued for:
 - Individual sites
 - Group of combined sites
 - General classification of sites
- General NPDES permits have been issued by Illinois EPA including:
 - ILG84 for quarries, rock crushing, sand & gravel facilities
 - ILR00 for industrial sites (asphalt plants, concrete batch plants, fabrication shops, etc.)

WATER PERMITS

- ILG84 permit covers the discharge of:
 - Storm water
 - Process waste water
 - Groundwater
 - Mine dewatering
 - Equipment wash water that does not include detergents
 - Pollution control/dust suppression water
- To obtain coverage, facilities must agree to comply with terms of the General Permit or else apply for an individual permit

WATER PERMITS

- General Permit includes requirements for:
 - Periodic sampling and monitoring
 - Inspections
 - Development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) which includes:
 - Description of site including discussion of site activities, identification of material storage areas, and listing of potential water pollutants
 - Practices and procedures used to reduce likelihood of contact (preventive maintenance, good housekeeping, sweeping/cleaning, etc.)
 - Site-specific controls to reduce/remove pollutants from discharge water (settling ponds, check dams, vegetation, etc)
 - IL URBAN MANUAL is a useful resource for additional options on site specific controls
 - Corrective action procedures

OIL POLLUTION PREVENTION

- USEPA has developed rules to prevent the likelihood of a discharge of oil to a navigable water of the United States
- Rules include the development and implementation of a site-specific Spill Prevention, Control, & Countermeasures (SPCC) Plan
- SPCC Plans are required for facilities that store more than 1,320 gallons of oil in aboveground storage tanks (42,000 gallons below ground) and that could reasonably be expected to discharge oil into a navigable water of the United States

OIL POLLUTION PREVENTION

- SPCC Plans must include:
 - A site description including a discussion of site conditions and summary of oil storage areas
 - A discussion of potential discharge rates and flow directions of discharged oils
 - Procedures for preventing the discharge of oil (closed and locked valves, manually operated pumps, monitoring of tank levels while filling, etc.)
 - Methods for controlling a discharge of oil (containment structures around storage tanks, availability of spill kits, materials, and equipment, etc.)
 - Countermeasures to be implemented in the event of a release of oil (notification, cleanup, waste disposal, etc.)

OIL POLLUTION PREVENTION

- Oil Pollution Prevention requirements dictate that the SPCC Plan must include the following:
 - Oil storage areas must be lighted to allow for detection at night
 - Sites must be properly secured to prevent public access
 - Periodic inspections must be conducted to identify potential failures before a release occurs
 - Oil-handling staff must be properly trained on oil pollution prevention procedures
 - Containment areas must be monitored before accumulated water can be discharged

Water Well & Septic Systems

- **Water Wells** (77 IAC Parts 915, 920, & 925)
- Permitted by the Illinois Department of Public Health (IDPH)
- Must be drilled and installed by a Licensed Water Well Contractor.
 - It is usually a good idea to find a water well contractor who is familiar with the local area and regional aquifers. The contractor will typically take care of the permitting process and will design the well based on the aquifer, intended use and anticipated number of users. Companies should also:
- Take out of service water wells not in use or abandoned and have them sealed by a licensed water well driller.
- Be aware that water well permitting fees and requirements may vary from county-to-county.
- Understand monitoring wells, used for scientific studies or to monitor groundwater quality, are not required to be installed by a licensed water well contractor in Illinois, but the well must be constructed according to 77 IAC Part 920.170.
- Know water wells designed for the sole purpose of dewatering may be subject to special requirements, depending on certain factors.
- the IDPH provides a licensed Illinois water well contractor search [HERE](http://bit.ly/idphwwcs) <http://bit.ly/idphwwcs>.

Septic Systems

- IDPH regulates the installation of all private sewage disposal systems that have no surface discharge (such as septic tanks and seepage fields) as well as those that discharge treated effluent up to 1,500 gallons per day to the ground surface (such as sand filters and aerobic treatment systems).
- The IDPH (or local authority (90) must review and approve plans for private sewage disposal systems and alternatives to them before construction can begin.
- All private sewage disposal systems must be installed by a certified sewage disposal contractor licensed by the IDPH.



Underground Storage Tanks (USTs)

- Underground Petroleum Storage Tanks (UST's) of 110 gallons or subject to OSFM regulation.
- The OSFM must approve all permit applications and requires a fee of \$200.00 for any UST activity
 - Installation, repair, decommissioning, etc.
- Basic Requirements
 - Use only tanks with double-walled construction, including any buried pipes.
 - Undergo regular inspections, leak tests, and maintain required records and documentation.
 - Have insurance or other financial assurance mechanisms to cover environmental contamination issues.
 - Have a periodic test conducted by a certified tester ensure the cathodic protection system is adequately protecting the UST system. These tests must be conducted at the following intervals:
 - Within six months of installation
 - At least every three years after the previous test
 - Within six months of any repair to the UST system
 - Have walkthrough inspections conducted to check the following:
 - Spill prevention equipment, Release detection equipment, Containment sumps, Handheld release detection equipment (Tank gauges, balers, etc.)



Aboveground Storage Tanks (ASTs)

- Two tanks up to 12,000 gallons each allowable at mine sites
- Specific installation restrictions for large tanks, to be approved during application process
- New installation and relocating an AST on your property requires approval and inspection by the OSFM, prior to use.
- > 1,100 gallons = designed in compliance with NFPA 30 & must be approved by the Illinois Office of State Fire Marshall.
- Storage of Liquefied Petroleum Gas (LP gas) in excess of 2,000 gallons are required to submit plans to the State Fire Marshall.



Spill Prevention Control and Countermeasures (SPCC)

- A Spill Prevention Control and Countermeasures (SPCC) plan is required for facilities which store petroleum products:
 - Aboveground - 1,320 gal – (All containers holding 55 gallons or more must be included when determining the 1,320 gallons threshold.
 - Below ground - 42,000 gal
- Certification
 - Professional Engineer - Total site petroleum storage exceeds 10,000 gallons or a single tank has a capacity of more than 5,000 gallons
 - Self Certification - Neither of these two limits are exceeded
- Revision
 - Within six months if changes, which affect fuel storage volume, contents or location, are made at the facility.
 - Major changes to the fuel storage facility must be reviewed, approved and signed by a Registered Professional Engineer (PE).
 - At a minimum each SPCC plan must contain the following:
 - General site information
 - Oil handling operations at the facility
 - A prediction of expected spill volume and direction of flow
 - Summary of containment structures for each aboveground storage tank (AST)
 - Spill prevention practices
 - Discharge or drainage controls
 - Personnel, equipment, and resources at the facility used to prevent oil spills
 - Summary of containment structures for each aboveground storage tank (AST),
 - Inspection frequency and procedures
 - Personnel training, including oil handling personnel
 - Site security measures
 - Spill prevention measures
 - Spill clean-up process
 - Record keeping and documentation
 - SPCC plan 5-year review



Universal Waste

- Includes:
 - Fluorescent / mercury containing bulbs
 - Batteries
 - Electronics / mercury-containing equipment
- Must be separated and stored only in approved containers
- Containers must be labeled with contents and accumulation start date. DOT regulations require disposal containers be labeled appropriately for transport.
- Use an approved waste vendor to dispose of all items except equipment/vehicle batteries and electronics. These are either traded in or disposed using facility vendors. IT can work with appropriate vendors.

Special Waste

- Includes:
 - Oil rags/absorbents and contaminated gravel
 - Used oil, oil filters and antifreeze
 - Used paint:
 - Dry paint can be thrown in regular municipal trash
 - Place full cans in metal drum – handled by waste vendor
 - Other used chemicals and fluids –
 - Handled by waste vendor
- Must be separated and stored only in approved containers prior to being handled by the waste vendor
- Containers must be labeled with contents. DOT regulations require disposal containers be labeled appropriately for transport.
- Store used oil and antifreeze in separate containers. Do not mix with other fluids.
- Drain used oil filters and store recovered fluids in the appropriate container.

Municipal Waste and Metal Recycling



Includes all general waste that is accepted at any landfill



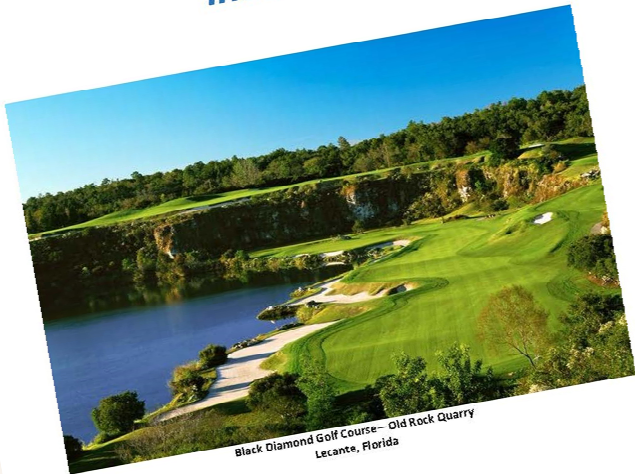
Picked up by the local contracted waste vendor

Pick up trash when found around the site. Keep dumpster/trash can lids closed to prevent rainwater from entering.



Scrap steel collection bins or roll-off dumpsters can be provided by a metal recycling vendor

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