

From: Calli, Rosemary <Calli.Rosemary@epa.gov>
Sent: Friday, May 22, 2026 10:30 PM
To: darin.lecrone@illinois.gov
Cc: Amy Minor; Knuckles, Meagan L CIV USARMY CELRL (USA); shawn.hokanson@ky.gov; timothy.knowles@gle-us.com
Subject: [External_Sender] CWA 01(a)(2) "may affect" notification re: Paducah Laser Enrichment Facility in Kentucky
Attachments: EPA R4_GLE-PLEF_401a2-May Affect_20260522.pdf
Follow Up Flag: Follow up
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Dear Mr. LeCrone –

Please see the attached Clean Water Act Section 401(a)(2) notification concerning the Paducah Laser Enrichment Facility proposed by Global Laser Enrichment, LLC in Paducah, Kentucky.

Due to the large file size of three supporting documents, they will be transmitted to your email address separately via a secure link for you to download.

Please don't hesitate to reach out with any questions.

Sincerely,
Rosemary Calli

Rosemary Calli
Section Manager, Wetlands & Streams Regulatory Section
Aquatic Ecotoxicologist
U.S. Environmental Protection Agency, Region IV
404.562.9846
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Federal Register Notice: 91FR14882
Comment Number: 5

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Subject: [External_Sender] CWA 01(a)(2) "may affect" notification re: Paducah Laser Enrichment Facility in Kentucky
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From: Calli, Rosemary

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Tracking Status: None

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Options

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REGION 4

ATLANTA, GA 30303

Mr. Darin LeCrone
Manager, Permits Section
Bureau of Water
Illinois Environmental Protection Agency
DWPC Permit Section #15
2520 W Iles Ave
P.O. Box 19276
Springfield, Illinois 62794-9276
Darin.LeCrone@Illinois.gov

Dear Mr. LeCrone:

On April 23, 2026, the U.S. Environmental Protection Agency Region 4 received notice from the U.S. Nuclear Regulatory Commission (NRC) of the enclosed federal license application and water quality certification under section 401(a) of the Clean Water Act (CWA). The certification was issued by the Commonwealth of Kentucky for the proposed construction and operation of a new commercial uranium enrichment facility in Paducah, McCracken County, Kentucky (37.093075 / -88.816167, lat/long). The project applicant is Global Laser Enrichment, LLC, and the project site is referred to as the Paducah Laser Enrichment Facility (PLEF).

Following receipt of this notice, the EPA reviewed the license application materials and related certification for the project under CWA § 401(a)(2). The proposed construction of the facility would authorize discharge of fill material into Waters of the United States (WOTUS) for the construction of the facility and an associated outfall structure into Little Bayou Creek, approximately 6.3 stream miles upstream of the confluence with the Ohio River and the border with Illinois. The impacts to WOTUS are being independently reviewed by United States Army Corps of Engineers (USACE), a federal permitting agency on the project, which has not yet decided whether to issue or deny a Department of the Army permit for the discharge of dredged or fill material into WOTUS. In an email on April 30, 2026, the Kentucky Division of Water clarified that the certification issued for the project is intended to cover any required federal license or permit, including the NRC license and any USACE permit for discharges into WOTUS.

The site is immediately north and upstream of the Paducah Gaseous Diffusion Plant (PGDP), which is a Department of Energy (DOE)-owned uranium enrichment facility that was constructed in 1957 presently undergoing an extensive deactivation and cleanup process, and is identified on the EPA Superfund National Priorities List. The PGDP site operations include radiological monitoring in Bayou Creek and Little Bayou Creek, which are both proposed discharge points for the PLEF site. Sampling and

periodic monitoring by DOE have identified various contaminants in soil, surface water, sediments, and groundwater on the site and beyond the site boundary. Contaminants of concern include trichloroethylene (TCE), polychlorinated biphenyls (PCBs), technetium-99, uranium, thorium, and transuranic elements (e.g., plutonium and neptunium). The PLEF project includes 30 linear feet of impacts to Little Bayou Creek for the construction and ongoing operation of a new Kentucky Pollutant Discharge Elimination System permitted outfall structure, through which treated process and sanitary wastewater from the enrichment facility would be discharged. Project plans also include the potential discharge of stormwater along the west portion of the site, which would either drain south to a stormwater retention basin or into a ditch along Hobbs Road, which is diverted via a culvert to the Bayou Creek watershed. Little Bayou Creek and Bayou Creek are both listed as impaired waters and drain directly to the Ohio River (also 303d listed impaired) at the border with Illinois (network distance of 6.3 and 7.4 stream miles, respectively). The Bayou Creek-Ohio River watershed (HUC 051402060701) has multiple impairment issues: metals, PCBs, dioxins, nitrogen and/or phosphorous, mercury, sediment, degraded aquatic life, bacteria and other microbes, nuisance plants or animals, and unknown causes.

Due to the potential resuspension and transport of existing contamination immediately downstream of the site from potential discharges, existing impairments in receiving waters, as well as the fact that Illinois has water quality standards related to the regulation of radionuclides in waters of the state (while Kentucky does not), the EPA has determined that it is possible that discharges associated with the facility's license may affect water quality in the state of Illinois.

The standard applied by the EPA in its "may affect" analysis requires determining whether a discharge into CWA jurisdictional waters may have water quality effects on a neighboring jurisdiction. 33 U.S.C. 1341(a)(2). In applying this standard, the EPA does not consider whether a covered discharge "will affect" water quality by violating the water quality requirements of a neighboring jurisdiction. *Id.*; see 88 FR 66645. The EPA's "may affect" determination does not imply or assert any particular likelihood of water quality effects or water quality violations in the neighboring jurisdiction and should not be understood to suggest such effects or violations. Rather, the EPA's "may affect" determination triggers an opportunity for the neighboring jurisdiction to provide evidence to the federal licensing or permitting agency on the question of whether such discharge will result in a violation of its water quality requirements. The EPA reserves the right to determine that any objection by a neighboring jurisdiction does not meet the "will violate" standard (i.e., the objection does not demonstrate that the covered discharge will violate the water quality requirements asserted by the neighboring jurisdiction).

I am providing copies of the applicant's draft license application materials from NRC and the related certification from Kentucky Division of Water, in accordance with 40 C.F.R. § 121.13(c)(2). Due to the large file sizes, they will be transmitted to your email address separately via a secure link for you to download. Pursuant to CWA § 401(a)(2), 33 U.S.C. 1341(a)(2), and 40 C.F.R. § 121.14, the state of Illinois has 60 days after this notification to notify the regional administrator and the NRC, in writing, if it determines that the discharges will violate any of its water quality requirements, to object to the issuance of the NRC license, and to request a public hearing from the Corps.

If you have any questions regarding this letter, please do not hesitate to contact me, or have your staff contact Austin Fitzgerald at 404-562-8395 or fitzgerald.austin@epa.gov.

Sincerely,

Rosemary Calli
Section Manager
Wetlands and Streams Regulatory Section
Water Division

Enclosures

1. Final Section 401 Water Quality Certification for the Project
(GLE_PLEF_401_Water_Quality_Certification.pdf)
2. Public Paducah Laser Enrichment Facility (PLEF) License Application Chapters 1-13.pdf
3. Draft Environmental Impact Statement for the project (DEIS_Global_Laser_Enrichment,_LLC.pdf)

cc: Meagan Knuckles

Senior Project Manager, U.S. Army Corps of Engineers, Louisville District

Amy Minor

Environmental Project Manager, U.S. Nuclear Regulatory Commission

Shawn Hokanson

Manager, Water Resources Branch, Kentucky Division of Water

Timothy Knowles

Global Laser Enrichment, LLC