



505 Fifth Ave Suite 850
Des Moines, IA 50309
515.244.1194
iaenvironment.org

May 3, 2024

Iowa Department of Natural Resources
Attention: Wendy Hieb
Wallace State Office Building
502 East 9th Street, 4th Floor
Des Moines, IA 50319-0034
Email: wendy.hieb@dnr.iowa.gov

**RE: Comments on the Draft NPDES Permit No. 9000101 for Interstate Power & Light
Ottumwa Generating Station**

Dear Ms. Hieb:

The Iowa Environmental Council (IEC) offers the following comments on the National Pollution Discharge Elimination System (NPDES) draft permit for the Ottumwa Generating Station, published on April 5, 2024. These comments represent the views of the Iowa Environmental Council, an alliance of more than 100 organizations, over 500 individual members, and an at-large board of farmers, business owners, and conservationists. IEC works to build a safe, healthy environment and sustainable future for Iowa. Our members care about air and water quality across the state, and they hike, recreate, and enjoy the outdoors in Iowa and beyond.

IEC finds that the draft permit does not address newly issued effluent limit guidelines for the steam electric sector, and it must be revised to incorporate them.

In addition, Interstate Power and Light (IPL) must conduct a new antidegradation alternatives analysis (AAA) for the newly constructed combined outfall 008. The NPDES permit issued in 2018 was based on combustion residual leachate (CRL) from the Ottumwa Midland landfill at a rate of .003 million gallons per day, which is substantially lower than the actual amount of CRL being trucked and discharged at Ottumwa Generating station.¹ The AAA performed by HR Green on October 21, 2021, was inadequate and failed to address the actual leachate being discharged. In addition, the draft permit must be revised to reflect the new Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source announced on

¹ Julie Faas (Iowa DNR), "Rationale for NPDES Permit," Jan. 4, 2018, at 5, available at https://programs.iowadnr.gov/wwpie/Utility/DownloadAttachment/18973?FileName=9000101%20%282018-01-05%29%20rationale%20for%20NPDES%20permit_1_1.pdf.

April 25, 2024.² The guidelines define the best available treatment for CRL leachate as zero discharge.

IPL must perform the AAA to address arsenic and mercury as pollutants of concern in the combustion residual leachate. In addition, the AAA must analyze the social/economic importance and provide a justification for degrading water quality in the Des Moines River. In conducting its evaluation, IPL needs to address the ancillary benefits to water quality and environmental justice issues. In short, IPL needs to conduct an AAA before the NPDES permit renewal can proceed.

I. Background

Federal regulations define technology-based effluent limit guidelines for the Steam Electric Generating category, including combustion residual leachate.³ EPA issued a final rule on April 25, 2024, updating these requirements after determining that the best available treatment for combustion residual leachate is zero discharge.⁴ Existing facilities must use this treatment as soon as possible, and no later than December 31, 2029.⁵

The Clean Water Act requires an antidegradation review before new or increased discharges of pollutants.⁶ Antidegradation is a fundamental part of the Clean Water Act's effort to restore the "chemical, physical, and biological integrity" of water across the country.⁷ Paired with designated uses and water quality criteria, antidegradation procedures act as a ratchet to prevent water quality from worsening. EPA has adopted regulations defining how states implement antidegradation requirements, including the process of considering alternatives and providing a justification before degrading water quality.⁸ EPA requires that in conducting an AAA:

"The analysis of alternatives shall evaluate a **range of practicable alternatives that would prevent or lessen the degradation** associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the State shall only find that a lowering is necessary if one such alternative is selected for implementation."⁹

In Iowa, the Department of Natural Resources is responsible for implementing antidegradation requirements. Iowa has a complicated history of antidegradation policy. Iowa adopted an antidegradation policy in 2010 that incorporated an Antidegradation Implementation Procedure

² "Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category" ("2024 ELGs"), U.S. EPA (Pre-publication version, Apr. 25, 2024), docket no. EPA-HQ-OW-2009-0819, available at https://www.epa.gov/system/files/documents/2024-04/prepublication_ow_supplemental-steam-electric-elg_final_frn_20240422_admin.pdf.

³ *Id.* at 15.

⁴ *Id.* at 104.

⁵ *Id.* at 383.

⁶ 33 U.S.C. § 1313(d)(4)(B).

⁷ 33 U.S.C. § 1251.

⁸ 40 C.F.R. § 131.12.

⁹ 40 C.F.R. § 131.12 (a)(2)(ii).

(AIP), which U.S. EPA approved.¹⁰ Under this policy, degradation of surface water that meets water quality standards is only allowed where “lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.”¹¹ In 2016, Iowa attempted to update its antidegradation policy, but the EPA disapproved the proposed rule amendments in 2017.¹² The denial left the 2010 Antidegradation Implementation Procedure issued by the Iowa Department of Natural Resources (IDNR) in effect as an enforceable water quality standard,¹³ even though state rules were not updated to reflect the denial.

As noted in the draft permit, the current stream designation for the impacted section of the Des Moines River is A1, B (WW-1), HH.¹⁴ The Des Moines River meets water quality standards for numerous pollutants, so it qualifies for Tier 2 protection according to the AIP.¹⁵ The AIP states:

“Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality *shall be maintained and protected unless* the department finds, after full satisfaction of the intergovernmental coordination and public participation provisions, that *allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.* In allowing such degradation or lower water quality, the department shall assure water quality adequate to protect existing uses fully. Further, *the department shall assure the highest statutory and regulatory requirements for all new and existing point sources* and all cost-effective and reasonable best management practices for nonpoint source control *before allowing any lowering of water quality*¹⁶

IPL is currently storing the Ottumwa Landfill leachate in a storage pond without a direct discharge to surface water.¹⁷ The CRL is trucked to the Ottumwa Generating Plant and combined with other on-site wastewater and discharged to the Des Moines River through new outfall 008.¹⁸ The 2018 permit established permit limits for oil & grease and TSS for outfall 001 based on a

¹⁰ See “Chapter 61, Water Quality Standards,” U.S. EPA, available at <https://www.epa.gov/sites/production/files/2017-05/documents/ia-chapter61-provisions.pdf>.

¹¹ 40 C.F.R. § 131.12(a)(2); IOWA ADMIN. CODE r. 567-61.2(2).

¹² Letter from Mark Hague, U.S. EPA Region 7, to John Tack, IDNR (Jan. 19, 2017), at 8 (“Despite the concerted effort by IDNR and EPA to reach consensus on an approvable rule, the EPA is disapproving the revised rules.”).

¹³ *Id.* (“Pursuant to 40 C.F.R. 131.21, the Antidegradation Rules and AIP approved by the EPA on September 30, 2010 remain in effect for CWA purposes.”). See “Section 2: Chapter 61, Water Quality Standards,” U.S. EPA, available at <https://www.epa.gov/sites/production/files/2017-05/documents/ia-chapter61-provisions.pdf>.

¹⁴ Draft Permit at 4.

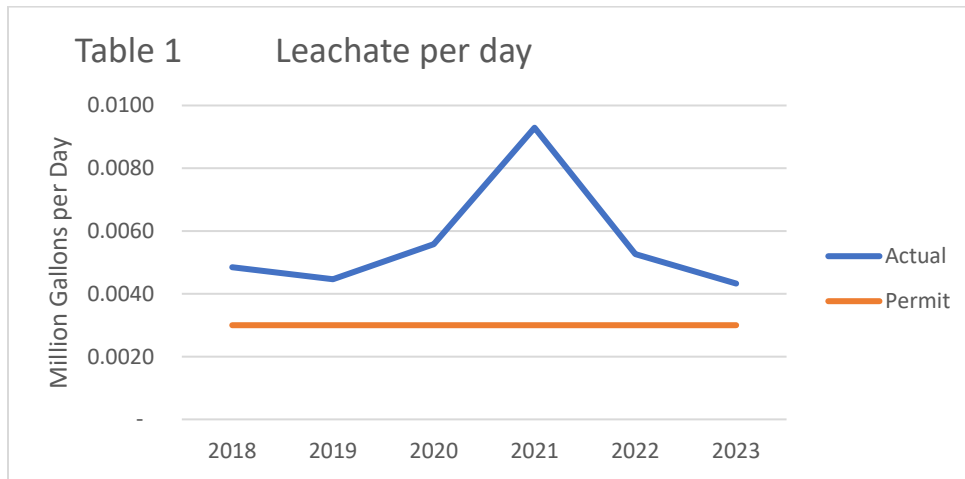
¹⁵ “Iowa Antidegradation Implementation Procedure,” Iowa DNR (Feb. 17, 2010), at 4, available at https://www.iowadnr.gov/Portals/idnr/uploads/water/standards/files/antideg_2_17.pdf (“Tier 2 protection level applies to all surface waters where existing water quality is better than applicable water quality standards as determined on a pollutant-by-pollutant basis”).

¹⁶ *Id.* at 4.

¹⁷ Draft Permit at 5.

¹⁸ *Id.* at 4, 5.

CRL volume of 0.003 mgd.¹⁹ As shown in Table 1, over the 2018 through 2023 timeframe the volume of CRL being discharged has consistently and substantially exceeded the .003 million gallon per day value used in the 2018 permit.²⁰



Consistent with the Iowa Antidegradation Implementation procedure, *all new or expanded regulated activities are subject to antidegradation review requirements.*²¹ The increased discharge of the leachate to the Des Moines River will clearly result in the addition of pollution, including numerous pollutants found in the leachate that will degrade water quality. Thus, the proposed change in process requires an antidegradation analysis.

II. The Permit Must Incorporate the Effluent Limit Guideline Requiring Best Available Treatment – Zero Discharge.

The effluent limit guideline (ELG) promulgated on April 25, 2024, requires existing CRL to meet the best available treatment technology (BAT) requirement of zero discharge.²² The new ELG identifies potential treatment methods to meet the requirement, including membrane filtration systems, SDEs, and thermal evaporation systems, alone or in combination.²³ The Ottumwa permit must incorporate these newly-applicable standards before issuance, including a compliance schedule if necessary.

A. BAT applies to Ottumwa Generating Station.

¹⁹ Rationale for Ottumwa Generating Station NPDES permit (PDF page 7) (January 5, 2018), available at https://programs.iowadnr.gov/wwpie/Utility/DownloadAttachment/18973?FileName=9000101%20%282018-01-05%29%20rationale%20for%20NPDES%20permit_1_1.pdf.

²⁰ Alliant Energy, “2023 Annual Water Quality Report,” Appx. F, att. C, att. A (PDF page 462) (Nov. 23, 2023), available at <https://programs.iowadnr.gov/solidwaste/OpenText/DownloadDocument/108359>.

²¹ “Iowa Antidegradation Implementation Procedure,” Iowa DNR (Feb. 17, 2010), at 12, available at https://www.iowadnr.gov/Portals/idnr/uploads/water/standards/files/antideg_2_17.pdf

²² 2024 ELGs, *supra* note 3, at 104.

²³ *Id.*

The BAT applicable to ongoing operations is zero discharge, which removes all dissolved metals and other pollutants of concern.²⁴ Only after cessation of operations at a facility would the regulations allow discharge of treated water.²⁵

EPA created a different treatment standard for “unmanaged” CRL, which commingles with groundwater. The permit rationale describes leachate discharges, which suggests the discharge is not simply polluted groundwater that qualifies as “unmanaged” CRL. Therefore, the BAT for standard CRL applies. The draft permit does not require this treatment and must be amended. The permit must include a compliance schedule that achieves zero discharge of CRL as soon as possible, and no later than December 31, 2029.

B. Zero Discharge is appropriate even in the absence of the new ELG.

Even if the ELG is stayed or vacated due to litigation, the permit should require zero discharge of the CRL. The EPA record shows that zero-discharge systems are available, are economically achievable, and have acceptable non-water quality environmental impacts.²⁶ MidAmerican uses this approach for its George Neal North operation in western Iowa.²⁷ As detailed below, DNR has not justified the continued discharge of CRL pollutants from the facility and the permit should incorporate a schedule of compliance for a zero-discharge treatment option.

III. Increased Leachate Flow and Pollutants of Concern Trigger a New Antidegradation Review that Corrects Deficiencies of the Prior Analysis.

The 2018 permit calculated permit limits assuming a leachate flow of 0.003 mgd and the antidegradation analysis considered only a few pollutants of concern. Actual flows have regularly been more than double the assumed volume and monitoring has revealed additional pollutants of concern. Even in the absence of updated ELGs (e.g., if they are vacated in the future), the expanded discharges require a new antidegradation analysis that corrects the flaws of the 2021 AAA.

A. The Antidegradation Alternatives Analysis for Ottumwa Generating Station Must Evaluate Alternatives for CRL.

The AIP requires that the DNR “assure the highest statutory and regulatory requirements for existing point sources must be met before allowing any lowering of water quality.”²⁸ In identifying the alternatives, the AAA must consider effluent limit guidelines (ELGs) announced

²⁴ *Id.* at 109-110 (noting that the requirements apply “during active operations”).

²⁵ *Id.* at 110.

²⁶ *Id.* at 106.

²⁷ See “Antidegradation Alternatives Analysis Neal North Outfall 016,” GHD (Mar. 3, 2023), available at <https://www.iaenvironment.org/webres/File/2023%2003-03%20Neal%20North%20AntiDeg%20for%20Public%20Comment.pdf>.

²⁸ AIP at 4.

by U.S. EPA as a final rule on April 25, 2024.²⁹ In the final Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, the EPA finds that zero discharge is the best available technology (BAT) economically available to treat Combustion Residual Leachate (CRL).³⁰ The current collection of the leachate in a leachate pond and mixing in a combined wastewater treatment pond is not consistent with the ELG process of zero discharge, and the EPA is not leaving BAT for determination on a case-by-case BPJ basis by the permitting authority.³¹ After evaluating the factors specified in Clean Water Act section 304(b)(2)(B), EPA has proposed that this technology is available, is economically achievable, and has acceptable non-water quality environmental impacts.

Treatment via zero discharge would make reasonable further progress toward the Act's goal of eliminating the discharge of all pollutants, as the limitations based on this technology would eliminate all amounts of arsenic, mercury, and other toxic pollutants from CRL discharges by the steam electric industry. This is important because the City of Ottumwa gets its drinking water downstream of the discharge.³²

The analysis of "add wastewater treatment" in the October 21, 2021 AAA, in contrast, focused on the treatment of the entire combined wastewater outfall after the leachate has been trucked from the landfill and dumped into the low volume waste water pond. It concluded that although the wastewater treatment is considered less degrading than the direct discharge to the Des Moines River due to its ability to remove metals from the wastewater stream, the water quality degradation is justified because wastewater treatment is 154% more expensive than direct discharge due to the costs associated with the construction of a new treatment plant. However, it failed to address treatment of the leachate prior to trucking it to the Ottumwa generating plant. It did not address the fact that treatment at the landfill could yield less-degrading alternatives for toxic pollutants like mercury, despite those being available for many years.

The direct discharge alternative selected in the draft permit is inconsistent with both the state's antidegradation requirements and the statutory intent of the Clean Water Act. It is clear that trucking the untreated leachate to the generating plant and discharging Des Moines River neither prevents nor lessens the degradation, and as discussed below, has not been justified.

B. The AAA Cannot Ignore Leachate Sampling Data.

The AAA identified pollutants of concern (POCs) failed to include TSS, mercury or arsenic.³³ The new ELG includes limits for arsenic and mercury in combustion residual leachate. Sampling

²⁹ [Steam Electric Power Generating Effluent Guidelines - 2024 Final Rule](https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2024-final-rule), U.S. EPA, available at <https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2024-final-rule>.

³⁰ 2024 ELGs, *supra* note 3, at 106.

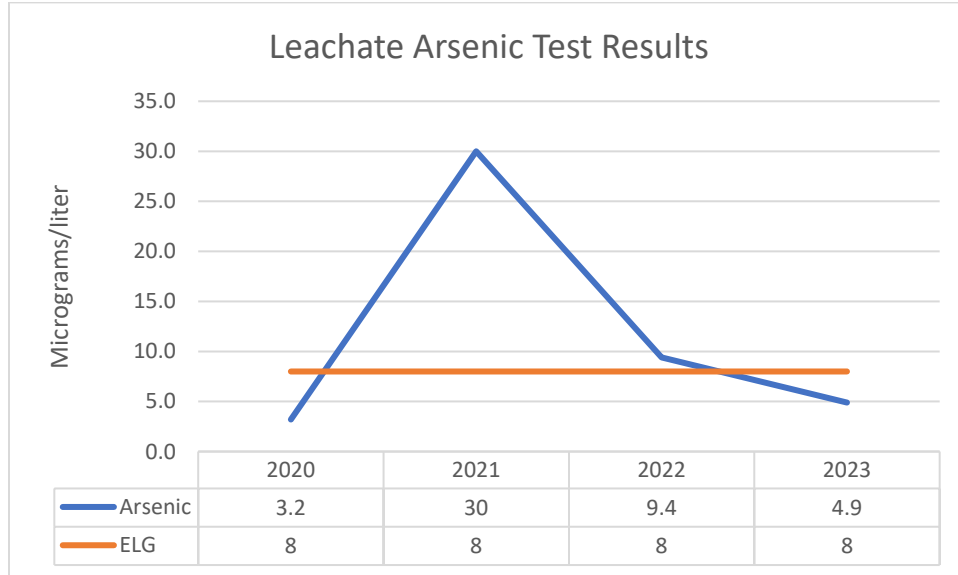
³¹ *Id* at 111.

³² "2023 Consumer Confidence Report," Ottumwa Water & Hydro, available at https://www.ottumwawaterworks.com/files/consumer_confidence_report_43250.pdf ("The source of your water supply is the Des Moines River and the Ottumwa Reservoir.").

³³ "Antidegradation Alternatives Analysis, Interstate Power and Light Ottumwa Generating Station," HR Green (PDF page 124) (October 15, 2021) available at

data for the Leachate Pond in 2020 and 2023 indicate the leachate contains less than 8 micrograms per liter of arsenic.³⁴ However, sample results in 2021 and 2022 showed arsenic consistently above the proposed ELG, as shown in Table 2 below.

Table 2.



The AAA did not incorporate the monitoring data for the landfill leachate, and appears to have entirely ignored the leachate. The AAA fails to even identify the landfill leachate in the alternatives analysis, fails to identify the leachate on the process flow diagrams, and merely mentions construction of the new Low Volume Wastewater Treatment Pond (LVWTP) in the footprint of existing ZLD Pond and addition of Ottumwa Midland Landfill (OML) leachate to LVWTP system.

As discussed in the final ELG, the EPA finds that BAT for CRL is zero discharge. Given the disparity in sampling results and the failure to address leachate in the AAA, IEC calculated the potential quantity of toxics and pollutants using the maximum concentrations experienced over the 2020 through 2023 timeframe. Table 3 below shows the potential annual quantity of toxics and pollutants being discharged into the Des Moines River based on the draft permit.

<https://programs.iowadnr.gov/wwpie/Utility/DownloadAttachment/18991?FileName=9000101%20%282022-2-15%29%20IPL%20-%20Ottumwa%20Amend%20Rationale%20pg%2080-137%20%284of5%29.pdf>.

³⁴ Alliant Energy, “2023 Annual Water Quality Report,” Nov. 30, 2023, at 426, available at <https://programs.iowadnr.gov/solidwaste/OpenText/DownloadDocument/108359>.

Table 3. Potential Annual Discharge Mass by Pollutant.

Based on average of 2,232,263 gallons per year

Conversion Factors: 1 gallon = 3.78541178 Liters

1 mg = 0.0000022046 lbs

Highlighted rows: toxics identified by the World Health Organization, and ELG POC's

| Analyte | | | | | Highest | 4 yr avg | | |
|---|--------|--------|--------|--------|----------|-------------|----------------|------------|
| | 2020 | 2021 | 2022 | 2023 | mg/L | Liters/year | mg | lbs |
| ARSENIC, UG/L | 3.2 | 30 | 9.4 | 4.9 | 0.03 | 8,450,035 | 253,501 | 0.56 |
| BARIUM, UG/L | 70 | 42 B | 55.0 | 61 | 0.07 | 8,450,035 | 591,502 | 1.30 |
| BERYLLIUM, UG/L | <0.27 | <0.27 | <0.27 | <0.33 | 0.0003 | 8,450,035 | 2,789 | 0.01 |
| BORON, UG/L | 4300 | 2500 | 2,400 | 2200 | 4.3 | 8,450,035 | 36,335,149 | 80.10 |
| CALCIUM, MG/L ⁽¹⁾ | -- | -- | -- | 200 | 200 | 8,450,035 | 1,690,006,931 | 3,725.79 |
| COBALT, UG/L | 0.26 J | 0.47 J | 0.31 J | 0.30 J | 0.0005 | 8,450,035 | 3,972 | 0.01 |
| COPPER | 1.5 J | 4.9 J | 2.0 J | 2.4 J | 0.0049 | 8,450,035 | 41,405 | 0.09 |
| FLUORIDE, MG/L | <0.23 | <0.28 | <0.22 | <0.38 | 0.38 | 8,450,035 | 3,211,013 | 7.08 |
| IRON, UG/L | <50.0 | 90 J | 45 J | <36 | 0.09 | 8,450,035 | 760,503 | 1.68 |
| LEAD, UG/L | <0.11 | <0.21 | <0.24 | <0.24 | 0.0002 | 8,450,035 | 2,028 | 0.00 |
| LITHIUM, UG/L ⁽¹⁾ | -- | -- | -- | 35 | 0.035 | 8,450,035 | 295,751 | 0.65 |
| MAGNESIUM, UG/L | 85,000 | 21,000 | 31,000 | 34000 | 85 | 8,450,035 | 718,252,946 | 1,583.46 |
| MANGANESE, UG/L | 62 | 33 | 15 | 16 | 0.062 | 8,450,035 | 523,902 | 1.15 |
| MOLYBDENUM, UG/L ⁽¹⁾ | -- | -- | -- | 790 | 0.79 | 8,450,035 | 6,675,527 | 14.72 |
| SELENIUM, UG/L | 33 | 60 | 37 | 38 | 0.060 | 8,450,035 | 507,002 | 1.12 |
| ZINC, UG/L | <10.0 | 14 J | <10 | 6.9 J | 0.014 | 8,450,035 | 118,300 | 0.26 |
| CHLORIDE, MG/L | 150 | 290 | 230 | 410 | 410 | 8,450,035 | 3,464,514,209 | 7,637.87 |
| SULFATE, MG/L | 4,300 | 1,600 | 2,200 | 2500 | 4,300.00 | 8,450,035 | 36,335,149,022 | 80,104.47 |
| TOTAL DISSOLVED SOLIDS, MG/L | 7,500 | 2,900 | 3,500 | 3300 | 7,500.00 | 8,450,035 | 63,375,259,922 | 139,717.10 |
| TOTAL SUSPENDED SOLIDS, MG/L ⁽¹⁾ | -- | -- | -- | 8.7 | 8.7 | 8,450,035 | 73,515,302 | 162.07 |

This represents over 233,000 pounds of untreated pollutants being discharged from the Ottumwa landfill to the Des Moines River via truck transportation to the Ottumwa generating facility. Notably absent from the available leachate monitoring data is any information on mercury.

C. The AAA Completely Misunderstands Social and Economic Importance.

Antidegradation regulations prohibit degradation of water unless the lower water quality is “necessary to accommodate important economic or social development in the area in which the waters are located.”³⁵ The DNR has explained that this importance addresses the “social and economic benefits to the community that will occur from any activity resulting in a new or expanded discharge.”³⁶

³⁵ 40 C.F.R. § 131.12(a)(2); IOWA ADMIN. CODE r. 567-61.2(2)(b).

³⁶ AIP at 2.

In attempting to justify the proposed degradation and demonstrate the important economic and social development in the area, the AAA provides an abbreviated and deficient analysis.

The analysis conflates operating the Ottumwa generating unit with the operation of the landfill. It notes that “OGS provides continuous power to approximately 606,995 homes and employs 65 people. If OGS was required to implement Alternative 3, the facility would have to adjust operations and this could ultimately impact the local community through unemployment and/or increased electricity costs.”³⁷ The AAA indirectly implies that without the ability to indirectly discharge to the Des Moines River, the operation of the Ottumwa power plant and the 65 jobs associated with it would be in peril. Given that the Ottumwa plant can continue to operate independently of the landfill, and the receipt of the untreated leachate at the plant is neither necessary or required, the analysis fails to establish *any* important economic or social development that would allow for a lowering of water quality.

The AAA also argues that the degradation is justifiable because the effluent being discharged will still reach the same body of water (Des Moines River) while avoiding an intermediate waterbody.³⁸ However, the AAA does not mention or discuss CRL leachate from the Ottumwa landfill in the design conditions or in the alternatives analysis, or identify arsenic and mercury as pollutants of concern.³⁹ Because the AAA did not identify any legitimate social or economic benefits from the degradation, no degradation is allowed by law.

D. The AAA Cannot Ignore Ancillary Water Quality And Environmental Justice Benefits of Treatment.

In its revised technology-based effluent limitations guidelines and standards (ELGs) for the steam electric power generating point source category, EPA included an analysis on environmental justice. The analysis showed that benefits associated with improvements to water quality, wildlife, and human health resulting from reductions in pollutants in surface water and drinking water will accrue to minority and low-income populations at a higher rate under some or all of the proposed regulatory options.

As part of establishing the ELGs, EPA evaluated the following criteria to rank communities:⁴⁰

- The community has both demographic (minority and low income) indicators and at least one environmental indicator above the 50th percentile nationally or has all environmental indicators and at least one demographic indicator above the 50th percentile nationally;
- The community has two or more demographic and/or environmental indicators above the 80th percentile nationally;
- The community has one or more demographic and/or environmental indicators above the 90th percentile nationally; or

³⁷ Antidegradation Alternatives Analysis at VI-1.

³⁸ *Id.* at V-1.

³⁹ *Id.* at III-1 to V-1.

⁴⁰ “Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category,” 88 Fed. Reg. 18824, 18879 (Mar. 29, 2023) (“Proposed ELG Rules”).

- The community has one or more demographic and/or environmental indicators above the 95th percentile nationally.
- Tier 3 communities meet one of the above criteria, Tier 2 communities meet two or three of the above criteria, and Tier 1 communities meet all four of the above criteria.

Using the [Environmental Justice Screening tool](#), the area within 20 miles of the Ottumwa Generating plant has potentially significant environmental justice issues. The area is above the 50th percentile for multiple demographic indicators (low-income, unemployment, limited English speaking households, less than high school education, under age 5, over age 64, and low life expectancy) as well as numerous environmental indicators (traffic proximity, lead paint, RMP facility proximity, hazardous waste proximity, underground storage tanks, and wastewater discharge).

Table 4.

| SELECTED VARIABLES | VALUE | STATE AVERAGE | PERCENTILE IN STATE | USA AVERAGE | PERCENTILE IN USA |
|---|--------|---------------|---------------------|-------------|-------------------|
| POLLUTION AND SOURCES | | | | | |
| Particulate Matter ($\mu\text{g}/\text{m}^3$) | 7.69 | 7.63 | 58 | 8.08 | 37 |
| Ozone (ppb) | 58.4 | 58.8 | 40 | 61.6 | 27 |
| Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$) | 0.141 | 0.158 | 51 | 0.261 | 29 |
| Air Toxics Cancer Risk* (lifetime risk per million) | 20 | 20 | 14 | 25 | 5 |
| Air Toxics Respiratory HI* | 0.21 | 0.21 | 3 | 0.31 | 4 |
| Toxic Releases to Air | 540 | 2,800 | 46 | 4,600 | 48 |
| Traffic Proximity (daily traffic count/distance to road) | 81 | 140 | 60 | 210 | 51 |
| Lead Paint (% Pre-1960 Housing) | 0.51 | 0.45 | 54 | 0.3 | 74 |
| Superfund Proximity (site count/km distance) | 0.023 | 0.094 | 41 | 0.13 | 21 |
| RMP Facility Proximity (facility count/km distance) | 1 | 0.72 | 75 | 0.43 | 88 |
| Hazardous Waste Proximity (facility count/km distance) | 0.51 | 0.42 | 72 | 1.9 | 50 |
| Underground Storage Tanks (count/km ²) | 1.8 | 1.9 | 68 | 3.9 | 57 |
| Wastewater Discharge (toxicity-weighted concentration/m distance) | 0.0063 | 0.28 | 83 | 22 | 64 |
| SOCIOECONOMIC INDICATORS | | | | | |
| Demographic Index | 25% | 22% | 69 | 35% | 42 |
| Supplemental Demographic Index | 15% | 12% | 73 | 14% | 59 |
| People of Color | 14% | 15% | 64 | 39% | 29 |
| Low Income | 35% | 29% | 70 | 31% | 63 |
| Unemployment Rate | 5% | 4% | 67 | 6% | 55 |
| Limited English Speaking Households | 2% | 2% | 79 | 5% | 63 |
| Less Than High School Education | 10% | 8% | 76 | 12% | 59 |
| Under Age 5 | 7% | 6% | 61 | 6% | 65 |
| Over Age 64 | 18% | 18% | 53 | 17% | 60 |
| Low Life Expectancy | 20% | 19% | 68 | 20% | 60 |

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at <https://www.epa.gov/haps/air-toxics-data-update>.

| HEALTH INDICATORS | | | | | |
|---------------------------|--------------|----------------------|-------------------------|-------------------|----------------------|
| INDICATOR | VALUE | STATE AVERAGE | STATE PERCENTILE | US AVERAGE | US PERCENTILE |
| Low Life Expectancy | 20% | 19% | 68 | 20% | 60 |
| Heart Disease | 7.3 | 6.5 | 69 | 6.1 | 74 |
| Asthma | 9.6 | 9.4 | 68 | 10 | 43 |
| Cancer | 7.2 | 6.8 | 50 | 6.1 | 72 |
| Persons with Disabilities | 14.6% | 12.5% | 72 | 13.4% | 63 |

At a state level, the area is at the 83th percentile in the state for wastewater discharges, as well as at or above the 72nd percentile for factors not directly related to water quality such as superfund proximity and RMP proximity.

Accordingly, we recommend that Interstate Power and Light consider the environmental justice issues associated with Ottumwa as a part of a new antidegradation analysis.

IV. Conclusion

Prior to renewing the NPDES permit for Ottumwa Generating Station, DNR must incorporate the applicable effluent limit guidelines to reflect the BAT for combustion residual leachate from the Ottumwa Midland Landfill.

We encourage DNR to require a revised antidegradation alternatives analysis to consider the increased flow until a zero-discharge system is in place, and such an analysis should properly account for all relevant water sampling data, the social and economic benefit analysis, and the ancillary benefits to the water quality and environmental justice issues.

Thank you for the opportunity to comment. If you have questions or we can clarify these comments further, please feel free to contact us.

Sincerely,

/s/ Steve Guyer

Steve Guyer
 Energy Policy Counsel
 Iowa Environmental Council

/s/ Michael Schmidt

Michael Schmidt
 Staff Attorney
 Iowa Environmental Council