



Department of
**Environment &
Conservation**

§ 133.103(b) Special Considerations.

*If you are interested in stories
with happy endings, you would be
better off reading some other
book.*

*~ Lemony Snicket
The Bad Beginning*

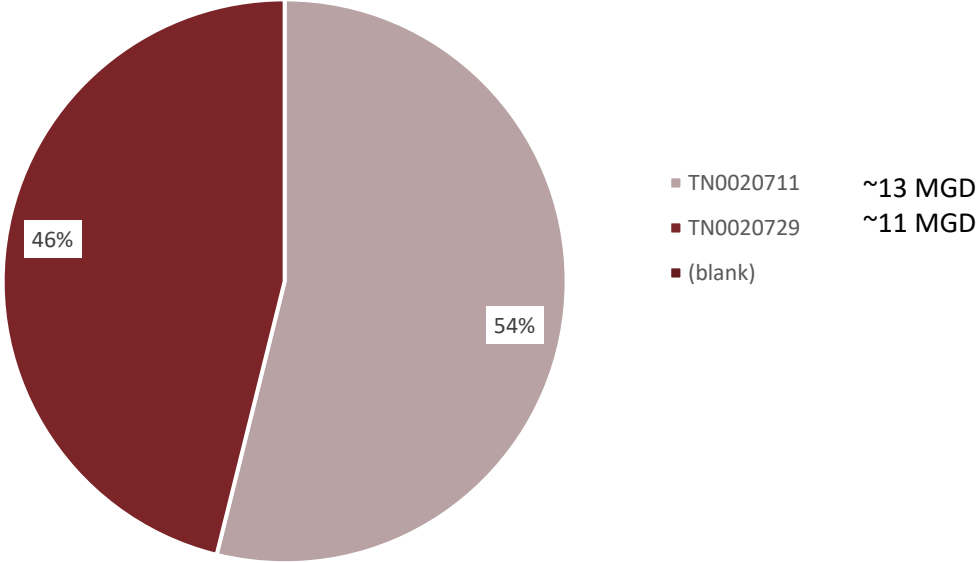
Two Facilities

- TN0020711 – North Plant
– M.C. Stiles
 - Design Flow = 135 MGD
 - Discharge to Mississippi River
- TN0020729 – South Plant
– T.E. Maxson
 - Design Flow = 90 MGD
 - Discharge to Mississippi River



SIU Average Total Flow to Each Memphis Plant

Sum of Avg Total Flow(GPD)

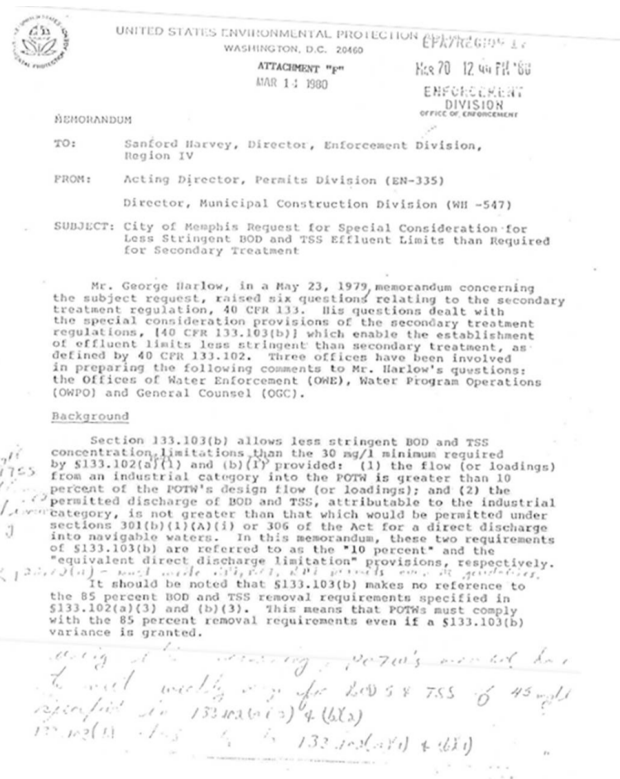


40 CFR 133.103(b)

- **Industrial wastes.** For certain industrial categories, the discharge to navigable waters of BOD₅ and SS permitted under sections 301(b)(1)(A)(i), (b)(2)(E) or 306 of the Act may be less stringent than the values given in §§ 133.102(a)(1), 133.102(a)(4)(i), 133.102(b)(1), 133.105(a)(1), 133.105(b)(1) and 133.105(e)(1)(i). In cases when wastes would be introduced from such an industrial category into a publicly owned treatment works, the values for BOD₅ and SS in §§ 133.102(a)(1), 133.102(a)(4)(i), 133.102(b)(1), 133.105(a)(1), 133.105(b)(1), and 133.105(e)(1)(i) may be adjusted upwards provided that:
 - (1) The permitted discharge of such pollutants, attributable to the industrial category, would not be greater than that which would be permitted under sections 301(b)(1)(A)(i), 301(b)(2)(E) or 306 of the Act if such industrial category were to discharge directly into the navigable waters, and
 - (2) the flow or loading of such pollutants introduced by the industrial category exceeds 10 percent of the design flow or loading of the publicly owned treatment works. When such an adjustment is made, the values for BOD₅ or SS in §§ 133.102(a)(2), 133.102(a)(4)(ii), § 133.102(b)(2), 133.105(a)(2), 133.105(b)(2), and 133.105(e)(1)(ii) should be adjusted proportionately.

Historical Interpretation

- EPA memo to Memphis March 1, 1980.
- This adjustment does not apply to % removals.
- Must use actual industrial data to determine the 10% threshold.
- Promulgated effluent limitation guidelines or standards are a necessary precondition for an industrial category or subcategory to qualify.



2011 Permit

- Previous permit writer included Solae in the permit for the South plant adjustment calculations.
- Solae is not subject to ELGs
- Their production was “fit” into the grain mills category
- Nonissue in the actual limits because of antidegradation and the previous limits were carried forward.

MEMPHIS PERMIT STATUS	BOD ₅ (Monthly Average)	BOD ₅ (Daily Max)	BOD ₅ (Weekly Average)	TSS (Monthly Average)	TSS (Daily Max)	TSS (Weekly Average)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Secondary Treatment Limit	30	45	40	30	45	40
North (2011 Permit)	43.1	86.1	64.7	52	104	78
South (2011 permit)	42	84	63	48	72	96

2016 Draft Permit

- Solae was removed from the calculation.
- The other industries that were subject to ELGs had a significant decrease in production
- Slight increase from secondary treatment standards.



2023 Draft Permit

- 1980 Memo is not supported
- Attorneys' advice is to not limit adjustment just to Industries with promulgated ELGs.
- Solae is included in the calculation with a BPJ limit
 - City requested BPJ to be based on the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) 40 CFR Part 414 because there was a sister Solae facility in Pryor, OK where due to the absence of data when it was first opened, OK DEQ used OCPSF
 - Around 2001 OK DEQ developed a performance-based standard using actual data.
- Two yeast manufacturers are included (one to the north plant one to the south plant)

2023 Draft Permit

- Two yeast manufacturers are included in the calculations
 - South Plant Yeast manufacturer does not meet the 10% threshold so it is excluded
 - North Plant Yeast manufacture does meet the 10% threshold and is included
 - Pharmaceutical Manufacturing Effluent Guidelines and Standards (40 CFR Part 439)

2023 Draft Permit

MEMPHIS PERMIT STATUS	BOD ₅ (Monthly Average)	BOD ₅ (Daily Max)	BOD ₅ (Weekly Average)	TSS (Monthly Average)	TSS (Daily Max)	TSS (Weekly Average)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Secondary Treatment Limit	30	45	40	30	45	40
North (2011 Permit)	43.1	86.1	64.7	52	104	78
North WANTS*	65.1	N/A	97.65	87.6	N/A	131.4
North (2023 Draft)	53.8	107.6	80.7	40.7	61.1	81.4
South (2011 permit)	42	84	63	48	72	96
South WANTS*	73.5	N/A	110.25	104.7	N/A	157.05
South (2023 Draft)	34.8	51.1	52.2	37.8	56.8	54

* From October 14, 2022, application update

Current State

- Having to do a BPJ determination without a certified application from that facility and all communication goes through an intermediary.
- What is a reasonable measure of production?
- Conjunctions
 - the flow *or* loading of such pollutants introduced by the industrial category exceeds 10 percent of the design flow or loading of the publicly owned treatment works. When such an adjustment is made, the values for BOD₅ *or* SS...
- City has requested that a large brewery be included in the calculations for the south plant
 - Both the Brewery and Yeast manufacturing were under consideration for ELGs in a Food and Beverage Category
 - Additional data is needed

Examples From Other States

- Merrimack, NH NH0100161
 - Adjustment is included for a single industry (brewery – no ELG) that is a significant portion of capacity ~35%
- Burley IWTP ID-000066-3
 - Implements 40 CFR 133.103(b) only for Industries with a promulgated ELG
- Oregon Permitting Template
 - Only applies 40 CFR 133.103(b) to facilities with promulgated effluent standards.

Potential Impacts to Industrial Direct Discharge Permits

- BPJ calculations in the context of a WWTP plant adjustment are not necessarily translated to a direct discharger. However, it could be used as a precedent.
- States where Municipal and Industrial permitting are separate units will have a knowledge gap.
- Significant increase in the administrative burden for these permits.