pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Amendment, Major**
Facility Type	**Industrial**
Major / Minor	**Minor**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Application No.	**PA0013323 A-1**
APS ID	**1027619**
Authorization ID	**1334710**

Applicant and Facility Information

Applicant Name	**The Boeing Co.**	Facility Name	**Boeing Helicopters Ridley Facility**
Applicant Address	PO Box 16858, MS P01-29	Facility Address	Stewart Avenue & Rte 291
	Philadelphia, PA 19142-0858		Ridley Park, PA 19078
Applicant Contact	Lawrence Weng	Facility Contact	Jeffrey Holmes
Applicant Phone	(610) 591-4401	Facility Phone	(610) 390-7651
Client ID	74664	Site ID	270165
SIC Code	3721	Municipality	Ridley Township
SIC Description	Manufacturing - Aircraft	County	Delaware
Date Application Received	November 17, 2020	EPA Waived?	No
Date Application Accepted		If No, Reason	PCB TMDL

Purpose of Application: Permit amendment

Summary of Review

The Boeing Company requests approval for an amendment to an NPDES permit to discharge industrial wastewater and stormwater from Boeing Helicopters Ridley Facility.

The current permit was issued on September 5, 2019.

This facility manufactures military aircrafts. Based on the DMR review, the discharge is in compliance with the permit requirements.

The amendment request is to increase the total dissolved solids (TDS) discharge limit for Outfall 001 in accordance with the renewed DRBC Docket No. D-1944-030-3 dated June 10, 2020.

Outfall 001 discharges treated process wastewater from metal surface treatment (which includes alkaline cleaning, chemical etching, conversion coating), cooling tower blowdown and stormwater. The discharge is into Crum Creek which is a tidal tributary of the Delaware River water quality zone 4.

Based on the permittee's request DRBC made a TDS determination for this facility and incorporated it into the DRBC Docket No. D-1994-030-3.

The DRBC's basin-wide in-stream TDS criteria is that the receiving stream's resultant TDS concentration be less than 133% of the background. The 133% of the background TDS requirement is for the protection of aquatic life.

The sources of the elevated TDS at the Outfall 001 discharge appears to be (1) IWTP treatment processes that utilize chemical addition for treatment which results in a by-product of salts in the effluent; (2) the recycling effect of the cooling towers which results in concentrating existing TDS in the cooling tower feed water which ultimately gets blown down to

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	December 15, 2020
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	12/16/2020

Summary of Review

Outfall 001; and (3) the application of road salt in the winter for de-icing purposes that leads to higher TDS in the stormwater which drains to and discharges from Outfall 001.

The TDS determination consisting of an average monthly effluent concentration limit of 2000 mg/l and a daily maximum effluent concentration limit of 2500 mg/l for Outfall 001 was approved by DRBC via Docket No. D-1994-030-3. Although these numbers exceed DRBC's basin-wide TDS effluent limit of 1000 mg/l, DRBC staff determined the facility's discharge to be compatible with the DRBC's designated water uses and water quality objectives in conformance with DRBC water quality regulations since the in-stream concentrations in Crum Creek are not expected to exceed DRBC's criteria of 133% of background as a result of facility's discharge.

The existing TDS limits are 1000 mg/l average monthly and 2000 mg/l daily maximum in the current NPDES permit. With this amendment we are incorporating 2000 mg/l as an average monthly limit and 2500 mg/l as daily maximum limit for Outfall 001 in the permit.

Nothing else is changed in the permit.

Act 14 Notifications:

Ridley Township - October 22, 2020
Delaware County - October 22, 2020

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Compliance History

DMR Data for Outfall 001 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
Flow (MGD) Average Monthly	0.14148	0.09612	0.25364	0.13997	0.09768	0.11894	0.12168	0.17093	0.151440	0.14177	0.203520	0.122616
Flow (MGD) Daily Maximum	0.17712	0.1512	0.76464	0.22896	0.1152	0.14832	0.16848	0.504	0.214560	0.2808	0.3168	0.234
pH (S.U.) Instantaneous Minimum	6.5	6.8	6.8	7.0	6.8	6.5	6.3	6.2	6.3	6.7	6.4	6.7
pH (S.U.) Instantaneous Maximum	7.7	7.3	7.3	7.3	7.2	6.7	6.9	7.4	6.9	7.1	7.1	7.5
Free Available Chlorine (mg/L) Average Monthly	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Temperature (ºF) Instantaneous Maximum	69	75	76	79	74	68	59	62	57	60	59	67
TSS (mg/L) Average Monthly	< 5	< 5.0	< 6	< 5	< 5.0	< 5.0	< 12	< 8	< 6	< 6	< 5	< 6
TSS (mg/L) Daily Maximum	5	< 5.0	7	5	6.0	< 5.0	31	20	7	11	6	8
Total Dissolved Solids (mg/L) Average Monthly	635	861	926	752	819	823	884	704	681	955	< 656	886
Total Dissolved Solids (mg/L) Daily Maximum	912	988	998	830	866	980	1090	1070	1170	1170	1100	1090
Oil and Grease (mg/L) Average Monthly	< 4.2	< 4.3	< 4.3	< 4.3	< 4.1	< 4.3	< 4.2	< 4.1	< 4.2	< 4.1	< 5.4	< 4.2
Oil and Grease (mg/L) Instantaneous Maximum	< 4.3	< 4.5	< 4.4	< 4.7	< 4.2	< 4.5	< 4.6	< 4.1	4.4	< 4.2	8.4	< 4.3
PCBs (Dry Weather) (pg/L) Daily Maximum											1095.1	
PCBs (Wet Weather) (pg/L) Daily Maximum											2449	

DMR Data for Outfall 002 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.2						6.4	
BOD5 (mg/L) Daily Maximum					< 50						2.5	
COD (mg/L) Daily Maximum					19						< 15	
TSS (mg/L) Daily Maximum					16						50	
Oil and Grease (mg/L) Daily Maximum					< 4.0						< 4.1	
Total Nitrogen (mg/L) Daily Maximum					< 1.6						< 1.2	
Total Phosphorus (mg/L) Daily Maximum					< 0.1						< 0.1	
PCBs (Wet Weather) (pg/L) Daily Maximum											261	

DMR Data for Outfall 003 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.1						6.1	
BOD5 (mg/L) Daily Maximum					< 20						2.1	
COD (mg/L) Daily Maximum					18						< 15	
TSS (mg/L) Daily Maximum					< 5						< 5	
Oil and Grease (mg/L) Daily Maximum					< 4.1						< 4.1	
Total Nitrogen (mg/L) Daily Maximum					1.88						1.86	
Total Phosphorus (mg/L) Daily Maximum					< 0.1						< 0.1	
PCBs (Wet Weather) (pg/L) Daily Maximum											42718.6	

DMR Data for Outfall 004 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.5						7.3	
BOD5 (mg/L) Daily Maximum					46.9						< 2.0	
COD (mg/L) Daily Maximum					138						18	
TSS (mg/L) Daily Maximum					29						8	
Oil and Grease (mg/L) Daily Maximum					< 4.2						< 4.3	
Total Nitrogen (mg/L) Daily Maximum					4.17						3.22	
Total Phosphorus (mg/L) Daily Maximum					0.3						< 1.0	

DMR Data for Outfall 007 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Instantaneous Minimum	6.4	6.5	6.7	6.6	6.6	6.4	6.3	6.2	6.4	6.6	6.5	6.6
pH (S.U.) Instantaneous Maximum	6.4	6.5	6.7	6.6	6.6	6.4	6.3	6.2	6.4	6.6	6.5	6.6
COD (mg/L) Daily Maximum					21						< 15	
Oil and Grease (mg/L) Average Monthly	< 3.9	< 4.0	< 4.6	< 4.0	< 4.5	< 4.4	< 4.3	< 4.2	< 4.0	< 4.1	< 4.0	< 4.0
Oil and Grease (mg/L) Instantaneous Maximum	3.9	< 4.0	< 4.6	< 4.0	< 4.5	< 4.4	< 4.3	< 4.2	< 4.0	< 4.1	< 4.0	< 4.0
PCBs (Wet Weather) (pg/L) Daily Maximum											1452.5	

DMR Data for Outfall 008 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Instantaneous Minimum	6.1	6.5	6.2	6.2	6.3	6.2	6.1	6.1	6.2	6.9	6.3	6.4

pH (S.U.) Instantaneous Maximum	6.1	6.5	6.2	6.2	6.3	6.2	6.1	6.1	6.2	6.9	6.3	6.4
COD (mg/L) Daily Maximum					< 15						< 15	
Oil and Grease (mg/L) Average Monthly	< 4.3	< 4.2	< 4.6	< 4.2	< 4.0	< 4.1	< 4.0	< 4.2	< 4.3	< 4.5	< 4.0	< 4.1
Oil and Grease (mg/L) Instantaneous Maximum	< 4.3	4.2	< 4.6	< 4.2	< 4.0	< 4.1	< 4.0	< 4.2	< 4.3	< 4.5	< 4.0	< 4.1

DMR Data for Outfall 012 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.5						6.3	
BOD5 (mg/L) Daily Maximum					3.9						4.6	
COD (mg/L) Daily Maximum					20						15	
TSS (mg/L) Daily Maximum					< 5						6	
Oil and Grease (mg/L) Daily Maximum					< 4.3						< 4.3	
Total Nitrogen (mg/L) Daily Maximum					2.6						1.6	
Total Phosphorus (mg/L) Daily Maximum					< 0.1						0.12	

DMR Data for Outfall 016 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.7						6.2	
BOD5 (mg/L) Daily Maximum					17.2						< 2.0	
COD (mg/L) Daily Maximum					19						< 15	
TSS (mg/L) Daily Maximum					30						43	
Oil and Grease (mg/L) Daily Maximum					< 4.2						< 3.9	
Total Nitrogen (mg/L) Daily Maximum					1.52						< 1.2	

Total Phosphorus (mg/L) Daily Maximum					< 0.1						< 1.0	
Hexavalent Chromium (mg/L) Daily Maximum					< 0.01						< 0.01	
Total Copper (mg/L) Daily Maximum					0.011						0.0062	
Total Lead (mg/L) Daily Maximum					0.044						0.04	
PCBs (Wet Weather) (pg/L) Daily Maximum											4262.5	

DMR Data for Outfall 025 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
pH (S.U.) Daily Maximum					6.2						6.2	
BOD5 (mg/L) Daily Maximum					6.3						6.7	
COD (mg/L) Daily Maximum					80						< 15	
TSS (mg/L) Daily Maximum					24						38	
Oil and Grease (mg/L) Daily Maximum					< 4.4						< 4.0	
Total Nitrogen (mg/L) Daily Maximum					5.72						< 1.3	
Total Phosphorus (mg/L) Daily Maximum					0.51						< 0.1	

DMR Data for Outfall 101 (from November 1, 2019 to October 31, 2020)

Parameter	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19
Flow (MGD) Average Monthly	0.0194	0.0194	0.0143	0.0166	0.0183	0.0141	0.0258	0.0201	0.0134	0.0123	0.0195	0.0158
Flow (MGD) Daily Maximum	0.02	0.02	0.0143	0.0172	0.0183	0.0141	0.0258	0.0201	0.0134	0.0124	0.0202	0.0158
pH (S.U.) Instantaneous Minimum	8.2	7.6	8.0	8.0	8.1	8.5	8.5	8.2	7.8	7.6	7.1	7.6

pH (S.U.) Instantaneous Maximum	8.5	7.9	8.0	8.2	8.1	8.5	8.5	8.2	7.8	8.1	7.6	7.6
CBOD5 (mg/L) Daily Maximum	132	153	20.8	284	791	193	96.7	31.9	> 50	595	1370	126
CBOD5 (mg/L) Industrial Influent Daily Maximum	299	169	107	262	282	247	201	339	458	625	144	271
TSS (mg/L) Average Monthly	12	14	10	20	12	14	22	23	23	24	24	12
TSS (mg/L) Daily Maximum	17	21	10	27	12	14	22	23	23	29	37	12
Oil and Grease (mg/L) Average Monthly	< 4.3	< 4.3	< 4.1	< 4.0	< 4.4	< 4.3	< 4.1	< 4.0	< 4.0	< 4.1	< 4.1	< 4.0
Oil and Grease (mg/L) Instantaneous Maximum	< 4.4	< 4.4	< 4.1	< 4.1	< 4.4	< 4.3	< 4.1	< 4.0	< 4.0	< 4.2	< 4.3	< 4.0
Ammonia (mg/L) Daily Maximum					0.625						2.02	
Total Cadmium (mg/L) Average Monthly	< 0.00114	0.0008	0.002	< 0.001	0.00093	0.0046	0.0023	0.013	0.0043	0.01047	0.004	0.00033
Total Cadmium (mg/L) Daily Maximum	< 0.002	0.00081	0.002	< 0.001	0.00093	0.0046	0.0023	0.013	0.0043	0.02	0.0065	0.00033
Hexavalent Chromium (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexavalent Chromium (mg/L) Daily Maximum	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Copper (mg/L) Average Monthly	< 0.0089	0.016	0.043	< 0.008	0.042	0.023	0.01	0.013	0.092	0.0065	0.0079	0.0054
Total Copper (mg/L) Daily Maximum	< 0.01	0.02	0.043	0.011	0.042	0.023	0.01	0.013	0.092	0.0068	0.013	0.0054
Total Cyanide (mg/L) Daily Maximum		< 0.01			0.0025			0.0024			< 0.005	
Total Lead (mg/L) Daily Maximum		0.0047			< 0.001			< 0.001			< 0.001	
Total Nickel (mg/L) Average Monthly	0.058	0.024	0.032	0.046	0.098	0.047	0.044	0.089	0.055	0.102	0.125	0.032
Total Nickel (mg/L) Daily Maximum	0.077	0.025	0.032	0.047	0.098	0.047	0.044	0.089	0.055	0.16	0.18	0.032
Total Silver (mg/L) Average Monthly	< 0.0023	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Total Silver (mg/L) Daily Maximum	< 0.004	< 0.0005	< 0.0005	< 0.002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

Total Zinc (mg/L) Average Monthly	< 0.016	0.034	0.021	0.015	0.011	0.018	0.0076	0.034	0.027	0.0099	0.0118	0.0096
Total Zinc (mg/L) Daily Maximum	< 0.02	0.035	0.021	0.017	0.011	0.018	0.0076	0.034	0.027	0.01	0.018	0.0096
Total Toxic Organics (mg/L) Daily Maximum											0.02068	