

CASE STUDY – MANAGING EFFLUENT OUTFALL

In March 2008 DAN was approached by a large manufacturer of food products that had contravened its contract with the EPA in regard to effluent outfall from its manufacturing plant.

The EPA normally enters into ‘private treaties’ with manufacturers. These private treaties or contracts normally prescribe the ‘strength’ and ‘volume’ of effluent that can be discharged. The manufacturer needs to demonstrate it has a process that can ensure BOD levels are not exceeded and then also needs to measure the volume of outfall and demonstrate a system is in place to manage a situation where the contracted volume is likely to be exceeded. The manufacturer that approached DAN had on several occasions exceeded its volume allowance and had been fined a substantial penalty. Repeated violations of an EPA contract can lead to the cancellation of the agreement and often leave a manufacturer with a severe risk of being unable to carry on production at that site.

DAN responded by installing a **DAN Effluent Outfall Data Logging System** that now provides the manufacturer with ‘comfort’ on a number of levels.

Firstly, as can be seen from the data table below, the DAN data logger routinely and reliably monitors effluent outfall 24/7 without the need for manual record-keeping.

Dan Server Data			Effluent Flow			Battery Voltage			Elapsed Time Since Last Reset	Discharge in kl	
			Aver Rate	Max	Min	Aver	Max	Min	Scal	Period	Gross
11/10/2008	13:00	1000	28.4	30.9	26.8	27.4	27.5	27.3	79606	51.06	1617.68
11/10/2008	12:30	1000	28.8	30.9	26.7	27.4	27.5	27.3	77806	51.78	1566.62
11/10/2008	12:00	1000	29.5	31.1	27.1	27.4	27.5	27.3	76006	53.04	1514.84
11/10/2008	11:30	1000	27.9	28.8	25.9	27.4	27.4	27.3	74206	50.22	1461.8
11/10/2008	11:00	1000	28.4	30.7	25.4	27.4	27.4	27.3	72406	51.13	1411.59
11/10/2008	10:30	1000	27.8	30.5	26.2	27.4	27.4	27.3	70606	50.04	1360.46
11/10/2008	10:00	1000	28	30	26.2	27.4	27.4	27.2	68806	50.39	1310.42
11/10/2008	9:30	1000	26	28.4	22.8	27.4	27.4	27.3	67006	46.66	1260.03
11/10/2008	9:00	1000	20.8	24.3	17.1	27.3	27.4	27.2	65206	37.28	1213.37
11/10/2008	8:30	1000	16.2	17.4	15.1	27.3	27.4	27.2	63406	29.15	1176.09
11/10/2008	8:00	1000	15.7	16.8	14.5	27.3	27.4	27.2	61606	28.29	1146.94
11/10/2008	7:30	1000	15.4	16.5	14.5	27.3	27.3	27.2	59806	27.8	1118.65
11/10/2008	7:00	1000	14.9	16.2	14	27.3	27.3	27.1	58006	26.94	1090.85
11/10/2008	6:30	1000	14.3	16	12.8	27.3	27.3	27.2	56206	25.76	1063.91
11/10/2008	6:00	1000	13	14.8	11.9	27.3	27.3	27.1	54406	23.42	1038.15
11/10/2008	5:30	1000	14.8	18	12.8	27.3	27.3	27.1	52606	26.64	1014.73
11/10/2008	5:00	1000	18.3	21.9	15.2	27.3	27.3	27.1	50806	33.02	988.1

Secondly, the data can be instantly accessed either via the internet (from any internet enabled PC) or by an authorised mobile phone. Thirdly, access to the data is password protected in much the same way as your bank account details. Fourthly, the manufacturer is able (through use of the 'password privileges' all DAN customers can allocate) to allow the EPA to log on and have visibility of the kilolitres discharged column and fifthly and most importantly, the DAN system takes local action when the allowable discharge in a any 24-hour period reaches 95% and automatically turns on a pump that diverts effluent into a holding tank awaiting discharge through the next 24-hour cycle.

The result has been outstanding with the manufacturer not having been fined since installation of the DAN Effluent Outfall Data Logging System was installed and with the EPA now having absolute confidence a responsible monitoring system is in place. Compared to alternatives, the DAN solution was absolutely effective and available to the manufacturer at a fraction of the price.