

The following are comments on the Feb 2013 Draft Waste Discharge Requirements for the City of Colfax WWTP.

Comments

- Page 5 – It is doubtful that the Executive director has the authority to authorize a permanent increase in the Colfax plant wet weather design flow. It is imperative that the issue of whether the City’s stress test was sufficient to justify increasing the plant’s wet weather design flow be put before the Board for formal decision. (see comments below on the stress test)
- Stress Test – On Page F-6, section 4, the draft describes the process which resulted in the executive officer approving a new maximum flow rate 0.8 mgd for the treatment plant. In the 2011 CDO, the Board directed the City to conduct a stress test to determine if the plant could operate at a higher throughput than the 0.5 mgd design rate. As described in #46 of the CDO, for each test the plant would include operating at incrementally higher flow rates (0.6 mgd, 0.7 mgd, 0.8 mgd) for approximately 40 days. These tests were intended to determine the maximum sustainable flow rates while keeping the effluent within Waste Discharge Requirements (WDRs). The results of the test, which were conducted Jan through April of 2012, were presented to Board staff in a July 30 2012 report, and the Executive officer approved a new rate of 0.8 mgd in an August 8 2012 letter. There are several problems surrounding the approval of this new rate:
 - The City did not follow the protocol for the stress tests. They did not conduct the tests at anything near the required 40 days for any of the flow rates.
 - The plant’s effluent flow meter (a continuous effluent flow meter is required by the permit) was not operating during February and early March. As a result, even though the City says they used a pump meter to record flows, there was no record of continuous flow for this period. Note the turbidity and UV effectiveness meters were also dysfunctional during periods of the stress test.
 - The data on flow and turbidity presented in the City’s July 30, 2012 stress test report is consistent with the SMR flow reporting for Jan through April of 2012, but is not close to consistent with the continuous meter data for those months. (see attachments presenting continuous flow data for Jan – April of 2012)
 - During January, March, and April 2012, when the continuous flow meter for effluent was operating, the data show the plant experienced 140 diversions of effluent. These diversion varied from less than an hour to several days. According to plant staff, at least some of these were the result of high turbidity. Thus it appears the plant was not operating well during these high discharge rates
 - The plant had numerous WDR exceedances during the period of the stress tests, and in fact was fined for exceedances of turbidity, BEP, and Mercury. This further confirms that the plant was not able to operate within the limits of the permit at these high rates of discharge.

- There has been no process for public review of the City's stress test report.
 - It does not appear that the Executive officer had the legal authority to approve a permanent increase in the maximum discharge rate.
- Page 15, Inadequate monitoring --The draft does not require monitoring for many of the constituents that are addressed on pages 14 and 15, including pesticides in the water column and bottom sediments, chemicals, radioactivity, biostimulatory substances (see page E 11 for receiving water monitoring requirements)
- Page 16, Eliminates Coliform limit for Ground water – This draft permit would eliminate the previous Coliform limit for Ground Water (a median of 2.2 mpn/100L over any 7 day period). (Pages 16 and E12 & 13). The permit requires groundwater monitoring for coliform, but does not set a permit limit as did the last permit.
- Page 24, Groundwater Monitoring -- The Groundwater Monitoring and Assessment Report which is required in section VI.C.2.C of this draft (page 24) would use only the current shallow wells (effectively only well RGW-003), rather than the deep wells that were originally specified in the City's original groundwater monitoring plan. In addition, the permit does not specify how the information in the report will be used – only that it will be collected and presented. This analysis should be released for public review and comment, and possibly board action regarding the condition of the pond 3 liner. Finally, the city has no provision for consistent background groundwater monitoring data for comparison with the data from RGW-003.
- Page 25, b. Pesticide Study – There should be a description of what decisions will result from this study.
- Page 33, F. Total Residual Chlorine Effluent Limitations – This seems to be an excessively polluter-friendly provision, particularly given the long history of chlorine violations at the Colfax plant. Unless the City is collecting backup monitoring data on an almost continuous basis, this is an unworkable provision.
- Page C2 – the Schematic does not seem to show the continuous sensors and automatic diversion system required for a Title 22 tertiary treatment plant.
- Page F4, Pond liner completion -- Page F4 states that the City has completed the pond 3 liner and implies it was done by October 1, 2012. In fact, the City completed laying the fabric for the liner in mid-November 2012; it completed the retaining wall on the west face of the pond in mid-December 2012, it is expected to complete the fence protecting the liner from game damage in Mid Jan of 2013 (both these structures were intended to protect the liner fabric from damage and should have been installed before the fabric).
- Page F6, # 2. The Executive director has authorized the City's discontinuance of Pond 3 seepage monitoring. If this is a fact, then how will the City or the Board know if the pond liner is intact (or leaking)?
- Page F 20 – Why did a portion of the RPA analysis only use data through 31 December of 2011 when data through the end of 2012 is available?

- Page F-21, Bottom paragraph– this paragraph that sampling 100 feet upstream from the discharge point should be representative of ambient water quality. In the past, however, seepage from pond 3 leaked into the watercourse a short distance upstream from this location. It remains to be proven that the newly installed pond liner is functioning well enough to change this previous condition.
- Page F21, Bottom paragraph – this paragraph comes to the conclusion that because of the newly installed pond liner “there should be no risk of seepage impacts” at this location. This conclusion, however, has no supporting evidence.
- Page F 38 – Bis (2...) the reasonable potential analysis on this page concludes that there is no reasonable potential for effluent “to cause or contribute to an in-stream excursion (of Bis-2) above the CTR criterion for the protection of human health. But page F 10 states that the City was cited and paid a fine for effluent violation of bis 2 limits. The fact of the citation and fine would seem to contradict the conclusion of the RPA analysis. In addition, the narrative conclusion on this page seems to contradict the information in Attachment G.
- Page F 43 -- Cyanide: The fact sheet states that during the past 4 years the Colfax plant has discharged Cyanide at a level of 5 ug/L – equal to the EPA TRA criteria of 5.2/L and in excess of the permit limit of 4.3 ug/l as a monthly average. It seems inappropriate to now conclude that the plant now has no reasonable potential to violate Cyanide effluent limit.
- Page F 44 – Iron: During the past 4 years The Colfax plant has discharged Iron in excess of the 300 ug/L limit for consumer acceptance. Whether or not the monitoring shows that the effluent exceeded the annual average limit for monthly discharge, the monitoring has certainly demonstrated the plant has the potential to exceed the limit.
- Page F 51 – Total Dissolved Solids (TDS): Monitoring record shows that the plant has the potential to exceed the 500 mg/L MLC for TDS by nearly a factor of 2. In addition, there are indications that the criteria for the North Fork of the American River – only a few miles downstream of the plant – is 125 mg/l (“Water Quality Standards Criteria Summaries: A Compilation of State and Federal Criteria” USEPA, September 1988). Thus the conclusions in the fact sheet seem inappropriate.
- Turbidity – On page F90 the draft argues that, “Since turbidity is not a valid indicator parameter for pathogens, the turbidity effluent limitations in the previous order ... were not imposed to protect the receiving water from excess turbidity”. This argument suffers from the following factual flaws:
 - Turbidity limits are established for Title 22 Tertiary plants – they are the same limits that were contained in the previous permit. Thus for this plant to continue to be a Title 22 tertiary plant the turbidity limits and monitoring must continue.
 - In addition, US EPA recognizes the ample evidence of a relationship between turbidity and pathogen pollution – turbidity particles can protect pathogens as

they pass through the disinfection system. All this considered, it seems both unreasonable and illegal to drop effluent limits and monitoring for turbidity.

- This draft permit stipulates that effluent turbidity of 2.0 NTU is an operational limit for the plant, but does not make it an actual effluent limitation. As a result, the city would be under no enforceable obligation to divert effluent that exceeds 2.0 NTU (an obligation it has under the existing permit). In order to protect the downstream water quality, the new permit needs to continue the effluent limitations for turbidity that were are in place in the existing permit.
- The constituents where there was limited or insufficient data for RPA analysis (Cadmium, lead, methylene blue activated substances, pentachlorophenol, PCHPs, silver) the permit requires an additional year of monitoring. But the permit does not say what will happen if the monitoring results show significant levels of these substances. In order to protect the downstream public, the permit should specify monitoring and waste discharge limits for these constituents until studies show they are no longer necessary.
- The permit should contain a calendar of events that includes the due dates for all the studies – and explicit periods for public review and comment, and date for board review and action.
- The Max. Eff. Concentrations listed in the table in attachment G do not seem to correlate to either the narrative in the fact sheet nor the Monthly SMRs from the City of Colfax (Cyanide, Iron, maybe others). In addition, the table did not list total Mercury, and possibly other constituents?

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