

MECHANICAL PULP SLUDGE UTILIZATION PROJECTS RELATED TO AGRICULTURAL APPLICATION

Addressing October 29-30, 2009, 2nd Round Protocol Review Questions and Comments

#	Section	Type of Comment	Comment / Statement	Proposed Resolution and Modifications made to Protocol
1		Policy/ Regulatory	Question on how this meets additionality criteria for Alberta. Baseline set in 2002. Industry adoption was 53%. In 2007 – adoption is 93%.	As of now, Alberta mills would not be eligible for credits under this protocol due to high adoption rates and project start dates. The adjusted baseline was reworded in the protocol to be generic in nature to enable it to be applied to a broader audience than Alberta's industry. An example of how to calculate an adjusted baseline is provided in the appendix
2		General	Comment on decomposition of sludge	No changes required. Based on the comparison based approach of this protocol we are capturing the amount of decomposition that has occurred during the credit period. Long term (20 year) studies have been conducted on the land application of sludge and have shown that the sludge is still present 20 years after application.
3		General	Response to comment regarding decomposition of sludge	No changes required.
4		Technical	Question of why we didn't consider upstream fertilizer activities in lifecycle analysis	No Changes Required. We took a conservative approach and didn't include the N component of avoided synthetic fertilizer use. The nitrogen content of the sludge provides enough nitrogen to sustain a minimum of 5 years which synthetic fertilizers do not need to be applied. By not including this in the quantification we are underestimating the actual amount of reductions.
5		Technical	Question of whether we considered if all nitrogen in sludge is being converted to N ₂ O	The IPCC guidelines and National Inventory guidelines that were used for this quantification assume complete combustion of the sludge which would result in all N being converted to N ₂ O. A stipulation was included in the protocol which requires mills practicing incineration to prove that this assumption is valid and their sludge is being completely combusted. An alternative quantification step would be required if this assumption did not hold true and this has been written into the protocol.

6		Technical	Was oxidation considered for the landfill?	No Changes Required. There is no cap put on the sludge landfill, thus this is not something that applies to this quantification
7		Technical	General question about the cost of sampling for the comparison approach	No Changes Required. The actual analyses are relatively cheap. The majority of the cost would be the sampling effort.