RSCL

RAJSHREE SUGARS & CHEMICALS LIMITED

(AN ISO 9001 : 2000 COMPANY)

Regd. Office : *"The Uffizi"* 338, Avinashi Road, Peelamedu, Coimbatore - 641 004 - Tamilnadu - India
Tel # 91 - 422 - 2580981 - 83, Fax # 91 - 422 - 2577929
email : rscl@rajshreesugars.com website : www.rajshreesugars.com

RSCL cogeneration expansion project
Project reference number – 0127
Response to request for review

Request for review

The approved monitoring methodology AM0015 requires that "The bagasse at the project facility should not be stored for more than one year." Clarification is required on how this requirement has been met.

Response

During the operation of the sugar plant, bagasse (the power plant fuel) produced after crushing sugar cane is conveyed directly to the boiler and the surplus bagasse is stored in a closed storage shed. The stored surplus bagasse is fed back to the boiler in the case of mill stoppages, or at the end of the season for clearing the process stock after cane crushing is stopped, or for start up operations of the following crushing season.

In the bagasse shed, bagasse is fed through a conveyor running length wise at an elevation which has 4 outlets with gates. In the same manner a conveyor runs below the storage level length wise and bagasse is reclaimed and sent to the boiler from any part of the shed.

To avoid cake formation and deterioration in the quality of bagasse, surplus bagasse is fed and stored in one half of the closed storage shed while the other half is emptied by back feeding of bagasse to the boiler through the conveyor system. Once one half of the bagasse stored in the storage shed is emptied, the fresh bagasse is stacked in its place and the other half is emptied by back feeding to the boiler. This is a continuous process during the sugar season as mill stoppages are common (occurring nearly every day) for the following reasons:

1. Due to varying fibre content in the sugar cane varieties arriving for crushing, there will be choking in the mills which give rise to stoppages.
2. Sugar Cane is transported to the plant by trucks bundled with steel ropes having hooks for unloading cane. Wooden poles are used to stack sugar cane in the trucks. At times, these poles and steel ropes get unloaded along with the sugar cane. To remove the poles and steel ropes crushing operations are stopped.
3. When the process side (sugar and syrup) gets overloaded, or if storage tank becomes full, mills have to be stopped to clear these overloads.
4. Mills are stopped for periodic maintenance of the cane knives, cane carriers, inter carriers, etc.,

Unit I, Varadaraj Nagar Post, Periyakulam Taluk, Theni District. Pin - 625 562
Tel : (04546) 242302 / 242309, Fax : (04546) - 242302 e-mail : vnagar@rajshreesugars.com

Unit II, Mundiyampakkam Post, Villupuram District, Pin - 605 601
Tel : (04146) - 232228 / 232401 / 232402. Fax : (04146) - 232403. email : mpakkam@rajshreesugars.com

5. Due to state electricity board grid disturbances, the turbo alternator will off load to home load and the extraction steam available for sugar process will get reduced. During such instances the mills will have to be stopped for about 15 / 20 minutes until the pressure reducing station is charged and steam is supplied for sugar processing.
6. There will be minor breakdowns in the electrical and mechanical equipments.

In addition to the above, there is a monthly shut down for sugar plant maintenance. Furthermore, if there are rains, sugarcane harvesting ceases, and mills will be stopped for want of cane.

In India, considering all the above points, the mill capacity is designed for 22 hours working leaving 2 hours for stoppages though the mills are capable of running for 24 hours.

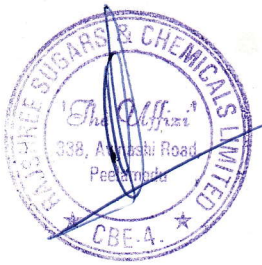
Hence, reclaiming the bagasse from the storage shed is a routine and continual operation.

During the current verification period, the total sugar mill stoppages for the period from 1.10.2006 to 30.9.2007 were 918 hours. Further, during the current verification period, the sugar plant was shut down for 68 days for maintenance from 21.10.2006 to 27.12.2006 and the power plant was stopped after clearing the stock in the boiling house on 22.10.2006 and restarted on 26.12.2006.

Generally after the sugar mill is stopped at the end of the season, about 1500 MTs of bagasse is used for clearing the process stock in the boiling house and about 1000 MTs of bagasse is left out in the storage shed for the next season start-up. These 1000 MTs are used immediately during start-up of the next season. Therefore, the question of storing bagasse for more than 3 months does not arise. Moreover the quantity of bagasse stored in the closed storage shed at any point of time is less than 1% of the total bagasse generated during a season / period.

The following table shows the bagasse stock at the end of each month.

MONTH	Bagasse stock at the end of each month (tonnes)
OCTOBER'06	2000
NOVEMBER'06	2000
DECEMBER'06	750
JANUARY'07	2100
FEB'07	700
MAR'07	1200
APRIL'07	2100
MAY'07	3100
JUNE'07	1800
JULY'07	2800
AUGUST'07	3000
SEPTEMBER'07	3500



The approved monitoring methodology AM0015 includes the applicability condition mentioned in the request for review but does not actually require the monitoring of the storage duration of bagasse as specified in the parameters to be monitored. In the case of the project activity it has also already been issued CERs and the storage time of bagasse was not raised as an issue during the verification associated with the issuance. We therefore feel that the monitoring of bagasse storage should have been raised at registration[1].

Examining other projects issued with CERs, AM0015 has now been consolidated into ACM0006 which has the same applicability conditions, and i.e. that biomass should not be stored for more than one year. Examining the last five projects issued with CERs under ACM0006 not one of them has monitored the storage time of biomass.

Recent Issuances

Title (*)	Date of issuance	CERs issued	Verified period
0578: Deoband Bagasse based Co-generation Power Project	4-Feb-08	190,404	01 Nov 2004 - 31 Mar 2007
0203: Cerradinho Bagasse Cogeneration Project (CBCP)	4-Feb-08	36,221	01 Jan 2006 - 31 Dec 2006
0043: Lucélia Bagasse Cogeneration Project (LBCP)	16-Jan-08	11,951	01 Jan 2006 - 31 Aug 2007
0577: The Godavari Sugar Mills Ltd (TGSML)'s 24 MW Bagasse Based Co-generation Power Project at Sameerwadi	14-Dec-07	170,103	12 Apr 2002 - 31 Mar 2007
0581: MAHARASHTRA, INDIA- Kurkumbh, 1.5 MW Biomass / Bagasse Based Co-generation Power Project	31-Dec-07	8,864	01 Jan 2006 - 31 Dec 2006
0187: Jalles Machado Bagasse Cogeneration Project (JMBCP)	8-Nov-07	12,221	31 Oct 2005 - 30 Nov 2006

[1] The validation report states "The crushing season and operational pattern indicate that bagasse will not be stored for more than one year", page 10. The storage of bagasse was also raised in the PDD, page 7.