

Answers to the questionnaire on bales dewiring

March 17th, 2017

1. Introduction

- 23 answers have been received, between 15 Dec. 2016 and 15 March 2017.
- Some answers are from different divisions of the same group.
- Out of 23 respondents, 9 are in mills with at least one automatic dewiring installation.
- Out of 23 respondents, 20 are in mills with at least one manual dewiring installation.

2. Answers related to automatic dewiring installations

2.1 How many incidents/accidents with safety consequences (from risk of injuries to severe injuries) caused by automatic dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- 1 respondent estimates that 1 to 5 incidents took place
- 1 respondent estimates that 2 incidents took place
- Others: zero or no answer

2.2 How many incidents with no safety consequences (process blocked etc.) caused by automatic dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- 1 respondent reports "incidents can happen a few times a day and request manual intervention"
- 1 respondent reports "around 2 incidents a year"
- Others: zero or no answer

2.3 Among the bales processed in automatic dewiring installations, what is the percentage of bales leading to an incident/accident due to a problem in the automatic dewiring installations?

- 1 respondent reports less than 1%
- 1 respondent reports 10%
- Others: zero or no answer

2.4 Among the bales processed in automatic dewiring installations, what is the percentage of bales requiring a human intervention (because the dewiring installation did not work properly)?

- 1 respondent reports 5%
- 1 respondent reports "rare"
- 1 respondent reports 10%
- 1 respondent reports 15/20%
- Others: zero or no answer

3. Answers related to manual dewiring installations

3.1 How many incidents/accidents with safety consequences (from risk of injuries to severe injuries) caused by manual dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- 1 respondent reports "1 in 2016, no data in 2015"
- 2 respondent reports 2
- respondent reports 4
- respondent reports 5
- 1 respondent reports 6
- 1 respondent reports "5 to 10"
- respondent reports 12
- Others: zero or no answer.

3.2 How many incidents with no safety consequences (process blocked etc.) caused by manual dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- 1 respondent reports "5 in 2016, no data in 2015"
- 1 respondent reports 20
- 1 respondent reports 44
- 1 respondent reports "sometimes, but quite rarely"
- 1 respondent reports "frequently"
- 1 respondent reports "regular blockages in some mills due to poo wire removal"
- Others: zero or no answer

3.3 Among the bales processed in automatic dewiring installations, what is the percentage of bales leading to an incident/accident due to a problem in the manual dewiring installations?

- 1 respondent reports "0,0002%"
- 1 respondent reports "less than 1%"
- 1 respondent reports "1%"
- 1 respondent reports "1 to 2%"
- Others: zero or no answer.

3.4 Among the bales processed in manual dewiring installations, what is the percentage of bales requiring a human intervention (because the dewiring installation did not work properly)?

- 1 respondent reports "less than 1%"
- 1 respondent reports "2%"
- 1 respondent reports "10%"
- 1 respondent reports "20%"
- 1 respondent reports "quite high, maybe 10%"
- 1 respondent reports "every wire of the bales has to be pulled out by hand. No dewiring support on the market except of complete automatic dewiring"
- Others: zero or no answer

4. Answers related to automatic and manual dewiring installations

4.1 How many incidents/accidents with safety consequences (from risk of injuries to severe injuries) caused by automatic or manual dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- respondent reports "1 in 2016, no data for 2015"
- 1 respondent reports 3
- respondent reports 12
- respondent reports "approximately 10 to 15"
- Others: zero or no answer.

4.2 How many incidents with no safety consequences (process blocked etc.) caused by automatic or manual dewiring installations have taken place in 2015 and 2016 in the mills you are in charge of?

- 1 respondent reports "5 in 2016, no data for 2015"
- Others: zero or no answer.

4.3 Among the bales processed in automatic or manual dewiring installations, what is the percentage of bales leading to an incident/accident due to a problem in the automatic dewiring installations?

- 1 respondent reports "less than 1%"
- Others: zero or no answer.

4.4 Among the bales processed in automatic or manual dewiring installations, what is the percentage of bales requiring a human intervention (because the dewiring installation did not work properly)?

- 1 respondent reports "less than 1%"
- 1 respondent reports "1%"
- 1 respondent reports "10%"
- 1 respondent reports "20%"
- Others: zero or no answer.

5. Reasons of dewiring problems

5.1 *What are the major reasons of the dewiring problems?*

- The bale must be placed in right position- wire can get jammed.
- Cuts and stitches from backwiping wires.
- Risk of perforation or cutting in the limbs, face and head of the operator.
- Handling of sharp wires edges and wire jams between belt and bale.
- "State of wrapping, Precisions level of the automatic unwiring system, wires too close to each other, no vertical wires, wet bales.
- Since, we are storing pulp mainly outside, the main Problem is the wetness.
- Automatic System: The system does not work properly.
- Manual System: The wire bouncing off and hitting the worker when pulling off or cutting the wires.
- The tension of the wires and the manual needed handling of the long wires with the sharp endings.
- Impossibility to remove wires because they are pinched.
- Tension of bale (or back swinging effects) wires lead to accidents during manipulation, due to the cutting of tensioned wires insurries with back swinging wires , recorded accidents occur from bale dewiring not with unit dewiring.
- Tension not always the same, bale is also changing dimension depending on moisture.
- They occurred some years ago only in 1 mill (the problem is that while cutting the wires manually some pieces of iron might injure the worker in the eyes/arms/hands and shoulders).
- Wires broken before de-wiring, wires missed due to dug into bales, loose pulp wrappers covering wires, poor positioning of wires.
- Flabby end/or swollen bales.
- Random differences in the bale's height 3) damages to the wrap due to the handling from producer-to-consumer.

5.2 *Is there a relation between the number of bale wires and the dewiring incidents/accidents?*

- 1 respondent reports "yes"
- 10 respondent reports "no"
- 10 respondent reports "don't know"
- Others: no answer.

5.3 *If the answer is "yes", what type of bale causes the highest proportion of incidents/accidents?*

- 1 respondent reports "bales with 2 wires"
- 1 respondent reports "bales with 3 wires"
- Others: no answer.

5.4 *Do broken wires (as a result of transport and handling...) cause incidents/accidents in the dewiring installations?*

- 9 respondent reports "yes"
- 9 respondent reports "no"
- Others: "don't know or no answer".

5.6 If the answer is “yes”, what percentage represents this cause?

- 1 respondent reports “5%”
- 1 respondent reports “10%”
- 1 respondent reports “50%”
- 1 respondent reports “estimates 10% cause incidents and have to be manually removed, also wrap around drive wheels etc. giving maintenance issue. Very few accidents”
- Others: no answer.

5.7 Are the incidents/accidents caused by the quality of the wire itself (unability to cut the wire due to its diameter/steel quality)?

- 12 respondent reports “no”
- Others: “don’t know or no answer”.

5.8 If the answer is “yes”, what percentage of dewiring incidents/accidents are related to the wire quality itself?

- 1 respondent reports “wire quality not such an issue. Mainly broken wires”
- Others: no answer.

5.9 Do unwrapped bales lead to less incidents/accidents in dewiring installation?

- 5 respondent reports “yes”
- 6 respondent reports “no”
- Others: “don’t know or no answer”.

6. Comments (ideas for reducing the number of incidents/accidents

- Use vizier-and safety gloves- put bale in the right position- BBS-thinking .
- Development of alternative bundling.
- Use gloves against drilling and cutting; apron; helmet, safety goggles, face shield. arms protection sleeve and safety shoes with steel toe caps.
- Wireless bales - e.g. with paper band.
- Alternative for wire would be appreciated.
- Find solutions without bales wires, unit wires are not seen as first priority, in general further improvement of safety behavior of employees.
- Eliminating wires and replace them with water soluble adhesive would be a great improvement. One supplier has already done it.
- Improve wrapping, reduce broken wires in transit, improve bale integrity - less compact bales more likely to be damaged in transit.
- Install automatic de-wiring equipment.
- Alternative to the wire ...i.e. straps which is possible to pulper together the pulp ;
- Very regular shape of the bales (width, length, high) and constant dryness (stored internally from producer-to-the-consumer).
- It seems possible a potential reduction of the number of wires for the units (warranting the unchanged safe-handling with cranes and forklifts).

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