ENVIRONMENTAL ASSESSMENT
REGISTRATION DOCUMENT

FOR

PROTEIN CONVERSION PLANT

PROPONENT:

COUNTRY RIBBON INC.
BUILDING 902, EAST WHITE HILLS ROAD
ST. JOHN'S, NL A1C 5L7

DATE:

FEBRUARY 15, 2010

Table of Contents

Appendices

NAME OF UNDERTAKING

PROTEIN CONVERSION PLANT

PROPONENT

Name of Corporate Body

(i) Country Ribbon Inc.

(ii) Building 902, East White Hills Road
Pleasantville
P.O. Box 803
St. John's, NL A1C 5L7

Chief Executive Officer

(iii) Mr. Ian Pittman
CEO
Building 902, East White Hills Road
Pleasantville
P.O. Box 803
St. John's, NL A1C 5L7
709-722-3751, x 233

Principal Contact

(iv) Mr. Ian Pittman
CEO
Building 902, East White Hills Road
Pleasantville
P.O. Box 803
St. John's, NL A1C 5L7
709-722-3751, x 233

THE UNDERTAKING

The project being undertaken by Country Ribbon Inc. (CRI) is the development, construction and operation of a Protein Conversion Plant (PC Plant). A PC plant is a processing facility specifically designed to convert offal and inedible material from the CRI poultry processing facility into usable meal and fat for animal feed. The PC plant will have the capacity and design to process 100% of the offal material from the poultry plant with 100% of the converted material being consumed at the CRI feed mill.

The CRI poultry processing plant produces an average of 30-35 metric tons of offal and inedible material consisting of feathers, viscera, blood, heads, feet and

discarded product from the cut up and further processing operations, on a daily basis. This material, a source of protein, is currently being landfilled.

The main purpose for the construction and operation of a PC plant is to allow CRI to recycle the poultry offal material in an effective, efficient and environmentally friendly manner. Regulations governing federally registered meat processing operations require this material to be removed from the processing facility on a daily basis. CRI used to send this material daily to the Rothsay Recycling facility located on Incinerator Road, where the material was processed in a similar manner as outlined above.

In April 2008, the Rothsay Recycling facility closed and CRI was forced to find an alternate user for the material formerly handled by the Rothsay facility. CRI tried, without success, to have the provincial fur farming industry utilize the offal material, excluding feathers; however, due to the volume of material being produced at the CRI poultry plant and the various impediments within the fur farming industry, particularly the mink industry, the amount of material that could be consumed by the fur industry fell well below projections. This, coupled with a number of environmental issues related to how the fur farm utilized the material forced CRI to re-direct the material to a landfill site located in Sunnyside, Newfoundland. The use of landfill for the disposal of this material is costly and not considered to be a best practice for waste management. The rationale for having a PC plant is that it provides CRI with a long term, stable method for offal disposal while having the least amount of environmental impact.

(i) Geographical Location:

The site for the proposed facility is situated on Incinerator Road, in the City of St. John's. The site is currently zoned as Industrial and the proposed usage is in compliance with the permitted usage for this particular zoning designation. The nearest municipality is Conception Bay South, which is approximately six kilometers north of the site as seen on the aerial photo in Appendix A. Access to the site shall be off Incinerator Road and the location of the proposed site is shown on the aerial photo in Appendix B.

(ii) Physical Features:

The current site is fully vegetated, primarily with a relatively dense stand of black spruce. Incinerator Road runs along the east and south boundary of the site; to the west is an existing scrap yard and to the north, open space and an abandoned landfill site. There are no visible watercourses or water bodies present on the proposed site and no known wildlife habitat that would be adversely affected by the proposed undertaking.

(iii) Construction:

The proposed undertaking will involve the construction of a new protein conversion plant to process materials generated by the local poultry processing industry.

The process equipment shall be housed in a building currently estimated at about 1,000 square meters in size. This building will likely contain:

- Raw product receiving area
- Process area
- Finish product storage and shipping area
- Ventilation and air handling equipment
- Waste water treatment equipment
- Employee Welfare Areas (office, washrooms, lunch room, change rooms)

The proposed building shall be a single storey concrete and metal construction. The building exterior siding and roofing shall be colored metal panel.

The building interior shall have solid concrete walls from floor level to the 2.5 – 3.0 meter height above this height the remaining area shall mostly likely be draped insulation with an internal metal or PVC liner panel.

The current schedule calls for placing orders for process equipment Spring 2010, building construction to commence early summer 2010 and start up of the plant in the early part of 2011.

(iv) Operation:

The offal material from the poultry plant shall be loaded into custom built trailers that are sealed (leak-proof) and compartmentalized for handling the various product streams. The trailer material shall be transported from the poultry plant located on East White Hills Road to the proposed PC facility on Incinerator Road along the route indicated on the aerial photograph in Appendix C. Upon arrival to the PC plant, the material is dumped into a large receiving bin equipped with screw conveyors that enables the product streams to be moved within an enclosure to the subsequent processing operations. One of the critical steps to successful protein conversion is the timely delivery and processing of the material. In order to ensure that the material is processed as quickly as possible, CRI will deliver material to the PC plant, two times per day. Following the receipt of the material, the truck and trailer will be thoroughly washed before being allowed to return to the poultry plant. This process step will reduce cross contamination and any bio-security risks associated with this material. The material is conveyed from the bins to one of 3 pressure vessels. The pressure vessels (cookers) apply heat and agitation to the material to break down the protein, as well as separate the fat and water. Following the cooking cycle, the vessels automatically discharge the evaporated water to an

air handling system until the material reaches the desired moisture level. Once cooked, the material is discharged to a drainer mechanism to allow the fat to further separate from the solid protein. The solids are then conveyed within enclosed conveyors to a press where the fat is mechanically removed, leaving a dry meal material. The extracted fat is pumped to a centrifuge for refinement and then pumped to a storage tank. The dry meal material is moved to a milling machine, which grinds the material into fine particles. The milled solids are then stored in tanks and approximately every 3 days, the meal and fat from the PC plant will be loaded onto a finished feed truck and delivered to the CRI feed mill in Mount Pearl.

In addition to the core process, the PC plant is equipped with air and liquid handling systems. The evaporated water (steam) from the material is piped through an air-cooled condenser, which converts the steam back to water. The water is pumped directly to the wastewater treatment plant where it is cleaned and purified to meet provincial and federal liquid effluent regulations. The non-condensable gases from the condenser, along with the VOCs, (volatile organic compounds) from the various processes and plant are piped into air scrubbers that use water film and chemicals to treat the air prior to discharge.

The final product shall be stored and shipped off site to CRI's mill on Topsail Road.

The entire building shall be maintained under negative pressure and the air handling equipment designed to collect the air within the building and direct it through a series of air scrubber units to discharge into the atmosphere. To eliminate any issues with noxious odors emanating from the plant and creating a noxious odor issues in the local area

The intent is that the potable water requirement for the operation and maintenance of the plant shall be provided from one or more groundwater sources.

Waste water disposal emanating from the plant shall be channeled to an on site waste water treatment facility that shall be designed to treat all plant effluent to meet Provincial DOEC guidelines for the discharge of waste water to a local receiving water.

(v) Occupations:

It is expected that the number of employees required for equipment and mechanical installation of the PC plant will vary between 10-30. The occupational breakdown is as follows:

- Millwright
- Welder

- Electrician
- Rigger

Once the plant is operational, the total number of employees is estimated at 4 per shift.

- 1 - 4th Class Power Engineer
- 1 – Truck Driver
- 2 – General Labor
- Plant Manager / Supervisor

Country Ribbon Inc is an equal opportunity employer.

FUNDING

CRI intends to apply to the Agriculture and Agrifood Development Fund (AADF) and to ACOA as part of its financing plan. However, due to the limited capacity of landfill available for disposal of the material under the current situation CRI will likely have to begin the project before a decision is rendered regarding its AADF application and will have adequate financing in place from conventional lenders to complete the project.

SCHEDULE

The tentative schedule for construction of the proposed undertaking is outlined in the attached schedule.