WESTERN CANADIAN GRAIN TRANSPORTATION AND THE MAXIMUM REVENUE ENTITLEMENT: PROCESS, DESIGN CONSIDERATIONS AND FINAL IMPLEMENTATION

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Introduction

The transportation of Western Canadian grain and the role of federal rate regulation have a long and well-documented relationship that reaches back to the settling of Western Canada and the establishment of the Crows Nest Pass Agreement in 1897. The ‘crow rate’ and its statutory freight rates was later formalized in 1927 and remained static for almost nine decades, until November 1983 when it was superseded by the Western Grain Transportation Act (WGTA), which took effect January 1, 1984 and the era of the ‘crow benefit’ subsidy and the setting of more compensatory maximum freight rates. The WGTA was repealed in 1995 and the Canada Transportation Act took effect on July 1, 1996, bringing an end to direct transportation subsidies but continuing the government’s role in setting maximum freight rates. In a reaction to a period of grain transportation difficulties experienced in 1995-96, an intense period of focus, investigation and consultation on the state of the Western Canadian grain handling and transportation system (GHTS) would be launched by government. The result of this two years of work would culminate in several months of frenetic policy and legislative activity that moved the regulatory framework governing the GHTS to less regulated (but by no means complete) and more commercialized environment.

This paper surveys the way in which decades of economic regulation of the GHTS, specifically rate setting regulations in the form of the maximum rate cap gave way to the Maximum Revenue Entitlement (MRE) regulation at the turn of the last century. Specific consideration is given to the way in which the specific recommendations of the Estey Report (1998) and the Kroeger Report (1999) on this issue were viewed by the government of the day and would ultimately culminate in Bill C-34, that amended the Canada Transportation Act and implemented the final form of the MRE on August 1, 2000.

Background: The Maximum Rate Cap (1995-2000)

The ‘maximum rate cap’ for the transport of Western Canadian grain was in effect from 1995-2000 and served as the interim regulatory approach bridging the former specified ‘crow subsidy rates’ of the WGTA which was in effect from 1984-1995 and the setting of variable rates under the Maximum Revenue Entitlement which eventually superseded the maximum rate cap in 2000. Under the maximum rate cap, which in essence was published as a tariff, freight rates for the transport of Western Canadian grain were set annually by the Canadian Transportation Agency (the Agency), via the authority contained in Section 149 of the Canada Transportation Act.

The rate cap established the maximum freight rate that the railways (Canadian National and Canadian Pacific) could charge to shippers of Western Canadian grain for movements to the west coast (e.g. for export) and to Eastern Canada (movements passing Thunder Bay (CP) or Armstrong (CN) in Ontario), but not for export destinations in the United States of America. The cost-based rate structure was applied in 25 mile increments (or blocks) and the railways used this as a basis to set their freight rates for all origin-destination pairs on their respective operating network. Two major activities were undertaken to set the rates: determining the total railway costs for the movement of Western Canadian grain (via quadrennial costing reviews), and using the most recent base year cost and applying adjustments to derive the estimated eligible costs for the forthcoming year.
This, in effect, established the upper limits for the freight rate, but lower freight rates could potentially be negotiated between the grain shipper and the railway (e.g. using lower rates to incentivize loading large car blocks, etc.). In 1998, it was estimated that approximately 10-15% of car movement in any year occurred under rates that were lower than the established maximum.

In setting the maximum rate cap under the *Canada Transportation Act*, the Agency employed a methodology that was heavily reliant on the foundations of the previous annual grain rate setting exercise performed under the auspices of the WGTA. The Agency established maximum rates that were in effect multiples of the Schedule III rates contained within the *Canada Transportation Act*. The rates contained within Schedule III were based on 1992 railway costing, as this was the last time a costing review was performed under the WGTA. On an annual basis, the Agency used the Schedule III rate and applied a freight rate multiplier which they determined. This inflation index considered changes in railways costs of labour, fuel and capital investment. As of 1998, over the three crop years 1995-96 through 1997-98 that this regulation had been in effect, freight rates had risen 9.3%.


Justice Willard Estey was appointed on December 18, 1997 to undertake a review of the GHTS focusing on all elements (e.g. institutional, legislative / regulatory, physical and operational, etc.) and to provide government recommendations that “will ensure Canada has an efficient, viable and competitive” GHTS. As such, the issue of grain transportation rates and regulation formed only one element of the broader scope of investigation.

Estey convened 147 meetings with over 1,000 participants and as the inquiry into the GHTS and discussions with stakeholders progressed, CPR tabled a proposal towards the end of the allotted time for the review, which suggested a repeal of the maximum rate cap in turn for a guaranteed net overall reduction in freight rates by the railway:

“...CPR will create a rate system that will allow the overall weighted average freight rate to go down by more than 5% over the next three years. This would translate in freight charge savings from CPR of close to $20 million. This reduction can take place because a commercial system would encourage more efficient behaviour, and cause overall costs to fall...CPR guarantees that the total freight payments for an equivalent volume will be the same or lower than what the maximum rate scale would have produced...The point is: greater efficiency and competition inherent in a commercial system make it less expensive. Those savings will be reflected in freight payments. We guarantee it.”

The above proposal was subsequently amended to move from a proposed $20 million in savings over three years, to $40 million over six years (based on 1998 grain tonnage). CN was given time to review and Estey quickly engaged other stakeholders for reaction, namely the grain companies and producer groups. Due to timing, the proposal was not able to be refined in great enough detail to obtain formal acceptance by the various parties, rather there was a general acknowledgment of the proposed concept. Grain companies expressed concern about the ability for competition to be created between the two railway companies and producers were intrigued by the prospect of having the results of GHTS efficiency gains in some measure providing direct impact through lowered rates. Without having obtained a consensus position, although it was acknowledged as being close, Estey made the following recommendation on the issue in the final report:
Recommendation No. 7 – The Rail Rate Cap

It is recommended that the rate cap be repealed and that the agreement proposed by CPR be adopted by appropriate legislative action. It is further recommended that the economies effected thereby be passed back on to the farmer who, for the purposes of this plan, is deemed to be the shipper and therefore entitled to the direct benefit of the freight reduction thereby achieved.¹⁰

On May 12, 1999, the Government announced that it agreed with the objectives and recommendations contained within the Report. In agreeing with Estey’s vision that the GHTS “can be made more efficient, accountable and beneficial to farmers by moving to a more commercially-oriented environment with appropriate safeguards to protect the public interest”, the government acknowledged this was only the first step towards “building a better system”. Operationalizing the principles of this conceptual framework would require further effort and the need to engage stakeholders to achieve this and addressing the rate regulation issue would be only one facet of this exercise.¹¹

It is of interest to note that an underlying consideration of Estey (as noted above), and in turn of government, was the role that the grain producer played in the GHTS and how the notions of fairness, sharing of benefits amongst participants from system reform (both regulatory and operationally) were central to the articulation of public policy direction. In Committee, Estey noted that “...a lot of farmers, and not without justification, feel they need that umbrella over them for the rain storms they get from the railroads if there’s no third-party surveillance of what the rate is at.”¹² Likewise, there existed a firm belief that the forthcoming package of reform measures would improve reliability of service while doing so at lower cost.¹³


Arthur Kroeger was appointed as the facilitator to lead an implementation process on May 12, 1999. He was tasked with developing a means to implement Estey’s recommendations by assembling stakeholder working groups to undertake the challenge of addressing the required technical and operational details. He was to provide a report to the Minister of Transport by September 30, 1999. Kroeger interpreted the essence of Estey’s recommendation as to go further in deregulating the GHTS but to balance that with safeguards for shippers and producers.¹⁴ The four and one-half month timeline for this task was aggressive, given the nature and contention of the reform package that required operationalization. Government’s stated goal was to have a package of legislative reform ready for implementation by August 1, 2000, the beginning of the 2000-01 crop year and it was clearly noted that “if the facilitator does not achieve consensus on any particular matter...[he] would report to the Minister of Transport on how to resolve outstanding implementation issues”.¹⁵ To undertake this assignment and to satisfy the Government’s direction to ensure the supporting consultative process Kroeger, established three working groups focused on the thematic issues of: (i) rates and revenues, (ii) commercial relations, and (iii) competition and safeguards. The development of the MRE was the primary task charged to Working Group No. 1.¹⁶

Working Group No. 1 – Rates and Revenues

The Working Group was tasked with developing the implementation details to move from a maximum rate scale to a maximum revenue entitlement regulatory environment. They were to specifically address two fundamental elements of Estey’s recommendation. Firstly, recommend what the MRE base should be, and secondly, what (if any) adjustments should be made to the MRE each crop year – two elements that would define the architecture of the regulation. Above all, the Working Group needed to approach its task with a view to operationalizing a regime that reflected a balancing between two challenges; ensuring that producers derive some benefit from the productivity gains being realized in the modernization of the GHTS,
against the need to ensure that the railways generate returns sufficient to spur investment in ongoing system improvements.

**Canadian Transportation Agency Analysis of Railway Costs**

A central point of discussion amongst the Working Group was around freight rates, railway costs and productivity sharing amongst system participants in a rapidly evolving GHTS. A baseline to begin this conversation was required. On June 7, 1999, Kroeger requested that the Agency provide an estimate of the change in the level of railway costs since the last formal costing review of 1992 (performed by the National Transportation Agency via the authority of the WGTA). The Transport Minister had made it clear that due to the expedited timelines provided to Kroeger to develop implementation details, a formal costing review would not be undertaken. A follow up letter from Estey to the Agency on June 11, 1999 requested that the Agency provide an estimate of productivity sharing, between the handling and transportation components of the system.

The approach the Agency used to undertake this analysis was a macro investigation of the two primary factors affecting unit costs: prices of inputs and changes in productivity. To do this, the Agency used the 1992 cost per tonne as the reference point ($31.50 per tonne and average length of haul of 1,023 miles). This reference year cost per tonne was then adjusted for inflation, on a yearly basis, from 1993 to 1998. A third factor was applied to address the varying average length of haul per year. To address the input prices, the Agency used its existing volume-related cost price index model related to grain, which included both volume-related and line-related costs. To address productivity (specifically total productivity), the Agency employed several established methods.

The results of the Agency analysis on railway costs were released on July 20, 1999. It found that for the year 1998, the estimated total cost of moving Western Canadian grain was between $676.5 million and $700.9 million. Furthermore, the difference between the railways’ net revenue from the transportation of grain and the costs related to this were estimated between $99.4 million and $123.8 million and this included a ‘fair return on equity’ (20% contribution to constant costs). Between 1992 and 1998, the Agency concluded that the average length of haul had decreased 6.4%, from 1,023 miles to 958 miles. Grain volume had declined in this period as well dropping 25.4% from 35.15 million tonnes to 26.3 million tonnes, while the composite price index increased 9.5%.

On the second issue of sharing productivity gains, the Agency’s analysis was based on comparing the changes in railway input prices, productivity and unit costs with corresponding changes in the prices that railways charge shippers (e.g. the ‘effective rate’). The analysis examined seven factors; four considered to be regulatory activities and three considered to be voluntary activities by the railways. The analysis concluded that for the year 1998, $4.61 per tonne was shared with grain shippers; of which $2.05 was due to voluntary initiatives and $2.56 due to regulatory factors. The Agency also estimated that 49 to 55% of the productivity gains were passed on to shippers (based on three, five and eight year moving averages). The analysis suggested that the 958-mile haul for 1998 (projected), in the absence of any sharing since 1992, would have been $35.12 per tonne ($8.40 to $9.33 higher than the estimated per tonne cost).

**Working Group – Deliberations**

Armed with the results of the Agency analysis, the Working Group began its discussions in earnest. The Working Group was to make a recommendation based on consensus. In designing the architecture of the MRE, two major elements needed to be addressed: establishing the base (e.g. cost per tonne in 2000-01) and choosing what type of adjustments would be made at the beginning of each subsequent crop year.

Three options were developed and they all shared a set of foundational elements, summarized in Table 1.
Table 1 – Summary of Consensus Elements for All Three Structural Options

- Base year set using 1998 data determinations obtained from the Agency
- Separate MRE calculations for the two prescribed railways based on 1998 data
- Base year to reflect revenues net of reductions for incentive rates and reductions for competitive and contiguous points
- No adjustments for either inflation or productivity sharing between December 31, 1998 and July 31, 2000
- Price indexing (inflation) will be calculated by the Agency using its present methods
- Implementation effective crop year 2000-01
- Revenue from tariff premiums to be included
- Revenue from car demurrage or contractual penalties paid by shippers to be excluded
- System to remain in effect through crop year 2004-05, which would also be the year to review the effectiveness of the grain provisions


The major difference between the three options was the setting of the base and how future productivity gains were to be shared (e.g. through regulation or through commercial forces). The three options are summarized in Table 2.

Table 2 – Summary of Three Structural Options for MRE

<table>
<thead>
<tr>
<th>Option</th>
<th>July 31, 2000 Base (1)</th>
<th>Future Regulated Adjustments</th>
<th>Estimated Revenue Cap Base in 2004-05 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$31.50 / tonne</td>
<td>Inflation based on then current CTA methodology (Assumed to be 1% per year)</td>
<td>$33.11</td>
</tr>
<tr>
<td></td>
<td>$945 million (based on 30 M tonnes)</td>
<td>No adjustment for productivity gains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>estimated 1998 actual revenues, net of incentive rates and “competitive and contiguous” rates</td>
<td>Effective rate expected to decline due to competition</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>$29.06 / tonne</td>
<td>Inflation based on then current CTA methodology (Assumed to be 1% per year)</td>
<td>$30.55</td>
</tr>
<tr>
<td></td>
<td>$872 million (based on 30 M tonnes)</td>
<td>No adjustment for productivity gains</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1998 costs based on 5-year moving average for productivity gains plus the railways retain 1/3 of the $9 productivity gain achieved between 1988 and 1998</td>
<td>Effective rate expected to decline due to competition</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>$25.79 / tonne</td>
<td>Inflation based on then current CTA methodology (Assumed to be 1% per year)</td>
<td>$23.36</td>
</tr>
<tr>
<td></td>
<td>$774 million (based on 30 M tonnes)</td>
<td>Adjust for productivity gains of 3% per year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1998 costs based on 20% contribution and 3-year moving average for productivity</td>
<td>Effective rate expected to decline due to competition (with a regulated minimum due to 3% annual adjustment)</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
(1) Base amounts derived from Agency analysis of 1998. No adjustments under any option for inflation or productivity sharing in the transition years 1998 to July 31, 2000.
(2) Supporters of each option believed that, as a result of competition, the effective rates will be less than the MRE base. For options A and B, the railways were expected to create conditions that would lead to 10% reduction in effective rates in 6 years.


The thinking behind the MRE regulation was that moving from regulated freight rates to a system that put an upper limit on total revenue for transporting regulated grains would allow the railways to dynamically price their services, thereby injecting market signals into the environment, which would in turn produce efficiencies. Secondly, this new degree of flexibility would allow for new and innovative service offerings to be employed by the railways. At the time, based on several studies and analysis, the expectation was that
moving to this style of deregulation would not result in producer cost increases, the question was in fact the opposite, how much would costs go down?21

The Working Group deliberations on the three options are summarized in Table 3.

| Option A | Revenue-based approach  
| Railway would create 10% reduction in revenues in 6 years through incentive rates and other forms of voluntary productivity sharing  
| Supporters: only option consistent with Estey’s Recommendation No. 7 and believed actual revenue would fall below MRE due to competition  
| Detractors: No initial benefit to producers and continued high contribution levels to railway constant costs. Feared that MRE limits would become target to maximize revenue, rather than an upper limit from which revenues would decline annually |
| Option B | Cost-based approach  
| Variation of a methodology devised by the Senior Executive Officers (SEO) group of the grain industry  
| Supporters: Producers would benefit from ‘up-front’ reduction in MRE and future productivity gains would be driven by commercial forces. Seen to still provide sufficient incentives for all participants  
| Detractors: Supporters of Option A viewed Option B as incompatible with Estey’s recommendations, while supporters of Option C viewed Option B contribution levels as too high, thereby allowing railways to retain too large of proportion of productivity gains |
| Option C | Cost-based approach  
| Supporters: Reducing railway contribution to 20% would maximize returns to producers, believed railways would receive adequate compensation and if effective competition was developed, revenues would remain under MRE limits  
| Detractors: Concerned with revenue adequacy for railways, viewed to be incompatible with Estey’s recommendations and would provide less contribution to constant cost than under the WGTA. Inadequate return on investment could impact both grain related investments by the railways and handling companies and may have an impact on service |

In summary, the Working Group could meet agreement on the structural design elements of the MRE but it could not develop a unanimous recommendation to Government on the two fundamental issues of the base and adjustments in future years.22

In his letter to the Transport Minister regarding the inability to arrive at a consensus position on the MRE, Kroeger concluded:

“Because the Working Group and Steering Committee were unable to achieve a consensus, it will be necessary for the government to decide what measures would be appropriate to deal with the separate but related issues of the revenue cap base and future adjustments to the base.”

That “the revenue cap [MRE] be implemented as a successor to the present rate cap. Starting with a reduction of 12% from 1998 railway revenue in the base year, and with rate reductions in subsequent years being effected by competition rather than regulation.”23

The final architecture of the MRE regulation would ultimately be a political decision, solely made by Government.


With the Kroeger Report in the hands of the Government as of October 5th, 1999, several policy decisions needed to be made in short order to ensure the regulatory reform package could proceed through the legislative process to ensure enactment prior to the beginning of the 2000-01 crop year. On May 10, 2000,
one year to the day of the announcement of the policy statement that set the development of reform into motion, the Government announced its decision for approach for implementation. The reform package, that contained three major elements, would include repealing the rate cap contained in Section 147 of the Act and “the establishment of a revenue cap that provides for an annual estimated $178 million reduction in railway revenues, which represents an estimated 18% reduction in grain freight rates from 2000-2001 levels.”

This translated into setting the base rate for the implementation of the MRE in 2000-01 at $27.00 per tonne (or $810 million), a level that was situated almost precisely between Working Group options B and C. This was a reduction of $5.92 per tonne from the estimated 2000-01 effective rate of $32.92 per tonne (an 18% reduction).

An additional corresponding policy decision was the Government announced it would establish a “mechanism of continuous monitoring, measuring and reporting” to provide the Ministers of Transport, Agriculture and Agri-Foods and other parties with ongoing insight into the impact of the reform package; this was the Grain Monitor program. A key point was that, from inception, this was to be done by an independent third party, private sector entity. Areas of original monitoring included both railway and handling performance measures, as well as tracking the benefits to farmers of the regulatory relaxation and sweeping structural change underway in the GHTS at that time.

The government proceeded to enact this reform through Bill C-34, introduced twenty days following the policy decision, on May 30, 2000. The Minister of Transport characterized the need for this legislative reform due to rising freight costs that producers were facing in light of “not enough sharing by railways and grain companies of productivity gains” and that the MRE will promote price flexibility while safeguarding producers from rate increases. In addition to setting the base, the Bill included a GHTS monitoring function (Section 50) and repayment with penalty for excess revenue (Section 150(2)). The statutory design of the MRE, including the foundational parameters of the formula, base year variables, volume-related composite price index and process and procedure, etc., were contained in Sections 150-151 and remain there today. The Bill had second reading and was referred to the Standing Committee on Transport on June 1, was reported with amendment on June 9, debated, read for the third time and passed on June 14. The Senate passed the Bill and it received Royal Assent on June 29, 2000.

Epilogue

Currently, eligible Western Canadian grain has been transported under the MRE regulation for 16 crop years. Other than the body of Agency decision making that has successively shaped the administrative and procedural application of the regulation, the statutory architecture contained in Sections 150 and 151 of the Act has not been amended, and remains as it did in 2000. As an economic regulation imposed by government on commercial actors, there are inherently many stakeholder perspectives and positions on this issue. The most recent period of scrutiny and debate has occurred over the last several years around the review of the Canada Transportation Act and the periodic legislative activity surrounding Bill C-30, The Fair Rail for Grain Farmers Act and its extension.

Endnotes

1 Canada. Parliament. House of Commons. Standing Committee on Transport (February 29, 2000). Minutes of Proceedings. 36th Parliament, 2nd session, meeting no. 39. Kroeger noted that the history of grain regulation in Canada “…produced a situation in which you had a kind of unique economy. It was not an economy intended to be efficient. It was designed to be equitable; it was designed to protect producers and it existed for a long time”.

2 Under the WGTA, government intervention went beyond simply establishing regulated freight rates. Under the ‘crow benefit’ or ‘crow subsidy’, the government directly subsidized the railways for movement of Western Canadian grain and set maximum freight rates. The rates were increased to compensatory levels and the level of annual subsidy was initially $658 million. Going
forward, the government was going to be actively involved in subsidization, committing to share the increase in grain transport costs with farmers, to the tune of $720 million in 1989-90 (with the government covering 70% of the cost, producers 30%). With mounting fiscal issues, government reduced the benefit in 1993-94 and in 1995 it was $565 million (government and producers assuming 50% each). See: Monteiro, J. and G. Robertson (2011). Grain Transportation in Canada – Deregulation. Canada Transportation Research Forum – 46th Proceedings.

3 The Agency was provided authority to set the maximum freight rates under Section 149 of the Canada Transportation Act and the methodology to do so was set out in Section 150.

4 Canadian Transportation Agency (July 16, 1999). A Report on the Movement of Western Grain.


6 Canadian Transportation Agency (1999). A Report on the Movement of Western Grain. p. 4-5. The Agency noted there were two major impacts flowing from the repeal of the WGTA. Firstly, there was an elimination of subsidies which was an immediate impact, and secondly, there was an elimination of scheduled costing reviews, which was noted to likely have a more delayed impact. While the WGTA was in effect, three costing reviews were completed: 1984, 1988 and 1992.


8 Transport Canada (December 18, 1997). News Release: Transport Minister Announces Head of Grain Review.


10 Ibid. p. 61.

11 Transport Canada (May 12, 1999). News Release: Federal Government Agrees that Estey Report Provides Framework for Much-Needed Grain Transportation Reform. Dealing with the maximum freight rates in a more commercial manner was only one component of this policy direction. Others included increasing the commercialization in rail car allocation, using contracts between stakeholders to increase accountability and providing legislative safeguards such as a cap on railway grain revenue, competitive options for grain shippers and more effective arbitration. A more competitive and commercial environment was envisioned to provide all stakeholders (including producers) benefits derived from efficiency gains.


16 Working Group No. 1 was comprised of 15 members representing: the Chair, producers (6), grain companies (3), railways (2), provincial governments (1) and supported by a Secretariat (2 - Transport Canada and AAFC).

17 The Western Grain Transportation Act implemented a rate scale based on distance. This was calculated by the Agency on the basis of an annual price index and regular railway costing reviews. The reviews occurred every four years (1984, 1988, and 1992). At the time, the policy decision was that the costing reviews would rebase the grains’ contribution to constant costs to 20%, which was deemed reasonable. In the intervening years between reviews, the productivity gains would be captured by the railways. The Agency determined over the duration of the WGTA, the annual average contribution was 27%.


19 The four regulatory factors: (i) impact of 1992 base year cost, (ii) non-recurring $59.8 million cost adjustment to the 1992 base year cost determination under the WGTA, (iii) the $10,000 per mile cost reduction from the maximum rate scale cost base for grain dependent branch lines abandoned since April 1, 1994, and (iv) the deferral of an inflation allowance in the rates in crop year 1995-96. The three voluntary factors: (i) rate reductions for competitive and contiguous points, (ii) incentive rate reductions, and (iii) provision of industrial development funds.


22 Other issues considered by the Working Group included: (i) issues with compliance and monitoring, (ii) issues of rebates (e.g. penalties for exceeding MRE determination, (iii) duration of the MRE, (iv) tariff structure issues, and (v) sharing benefits with farmers.


24 Transport Canada (May 10, 2000). News Release: Government of Canada Announces Measures to Improve Western Grain Handling and Transportation System. The revenue cap was one of the three major elements of reform. The other two were: a phasing-in of the Canadian Wheat Board (CWB) tendering for logistics service; from a minimum of 25% of their volume in 2000-01 rising to a minimum of 50% in 2002-03, and amending the CTA to facilitate the transferring of branch lines to short lines and simplifying the final offer arbitration process.

25 Ibid.


27 Through the Railway Company Pay out of Excess Revenue for the Movement of Grain Regulation, the excess revenue and any applicable penalty is paid to the Western Grain Research Foundation.