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**ALLOCATION OF MEAT INSPECTION
RESOURCES IN ONTARIO**

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Final Report on Allocation of Meat Inspection Resources in Ontario

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1.0 Introduction

Following considerable conflict, the first phase of this project produced an agreement at the end of April, 1997 between the Ontario Ministry of Agriculture and Food and the Ontario Independent Meat Packers and Processors (OIMPP) that an alternative system for allocating inspection hours to plants was to be developed. The alternative was to be based on the principle that scarce hours should be allocated in a way that does not penalize plants which use inspection resources efficiently. A second principle was that the process should explicitly recognize that there are efficiencies associated with plant size and that efficient small plants should not be discriminated against.

This document contains the final recommendations for that process. In describing the process, the report addresses separately the issues of :

1. How to allocate hours to plants at their current (1996/97) plant size.
2. How to allocate hours to plants that are growing or are new
3. How to address any appeals from this set of recommendations and
4. What to do about charging for inspection hours used above the allocation levels.

In addition to these “short term” issues, the original project made recommendations about the longer term issues regarding the direction of meat inspection for the next several years. This is summarized here and recommendations are made for a process to move along a positive adjustment path.

2.0 Revising the Allocation Mechanism for Inspection Hours and Physical 1997/98

As indicated in the foregoing, a major concern of the OIMPP was the mechanism used by the Meat Industry Inspection Branch (MIIB) to allocate available inspection hours in 1997/98, based on the most efficient quarter’s use by an individual plant in the previous year. Their concern was that the mechanism is not fair and provides no incentive to increase the efficiency with which plants use inspection time. Fairness was cited because plants that made efficient use of inspection time were often perceived, in the original allocation, to have received cuts in their inspection time at least as great as those that did not use it efficiently.

2.1 The Mechanism Recommended for the 1997/98 Allocation of Inspection Hours to Plants with The Same Throughput as 1996/97

The fundamental approach in the recommended mechanism is to use standards based on industry segments. The logic of this mechanism starts with figure 2.1 which illustrates the notion that efficiency of inspection time is expected to be related to plant size. The graph shows this with the series of points that represent various plant sizes and an increasing ratio of animals processed per hour of inspection time as plant size increases. The figure shows the expectation that inspectors are used more efficiently in larger plants than in smaller ones.

Figure 2.1 Expected Relationship Between Plant Size and Efficiency of Inspection Use



The starting point is to allocate hours to “size segments” based on efficient use by those plants in each segment. One of the measurement difficulties encountered in this project is how to measure the level of output of a plant. Ontario plants slaughter more than ten species of animals; a plant that slaughters 1000 cattle is different than one that slaughters 1000 hogs, 10 emu and 12 buffalo. Many plants in Ontario process a mixed array of species. To resolve this problem, the MIIB uses the concept of an animal unit (AU). Animal units are defined in detail in appendix 1, but it is a set of factors that equate the number of animals of different species processed per unit of inspection

time - eg. four hogs can be inspected in the same period as one steer. This allows plants to be compared when they have different mixes of animals.

Experience has shown that the AU measure works reasonably well except in comparing “red” and “white” meat plants; the two types of plant are quite different in their characteristics. Therefore plants were also segmented on the basis of whether they are predominantly red or white meat processors.

Table 2.1 contains the summary information that describes the allocation mechanism. The first column shows the industry segments that are the basis for the allocation mechanism. As is clear, we ended with seven size groups ranging with those less than 2500 units per year to those with over 100, 000 animal units. Also there is a red and white segment at each size.

The first column of data is the average number of animal units processed (average rate) per inspection hour for each segment, calculated from MIIB’s fiscal 1996/97 records. Comparing the averages for each segment confirms the expected relationship between plant size and efficiency of inspection use common for both red and white meat plants, AUs processed per hour of inspection increase as plant size increases. Also, note that ratios are quite different for red and white meat plants at each size. This means that the notion of allocating inspection hours based on size and type of plant is consistent with the nature of the industry.

The third column shows the number of inspection hours each segment used per week in fiscal 1996/97. Following this is the percentage that each segment made up of the total hours in 1996/97. These are used to allocate hours for 1997/98 by assigning the percentage each segment had in 1996/97 to the total available for 97/98. The result is in the fourth column (available hours). It is the number of hours per week available to each segment in 1997/98.

Once the number of hours of inspection has been allocated to each segment, the final requirement is to allocate inspection hours to each plant within a segment. This is done based on the efficiency with which each individual plant within the segment used inspection hours in 1996/97 versus the average of the segment.

There are four steps involved in the individual plant mechanism.

1. Plants whose efficiency of use was equal to or greater than the group average were not penalized. In other words, they received the same number of hours per week for 1997/98 as they did in 1996/97.
2. Those whose efficiency of use is less than the group average were assigned fewer hours in 1997/98. As an initial step in this procedure, the number of hours that would bring the less efficient plants to the group average was calculated. The column called “initial allocation” is the result. It contains the number of inspection hours per week for each segment that would be allocated to bring each plant to the group average or its own 1996/97 level, whichever was greater. As a result of this

step, all but the largest segment of white meat plants yielded fewer hours than are available for 1997/98¹. This led to the third step.

3. Note that the fifth segment (red meat plants with 5,000 - 10,000 AU per year) has 588.78 hours per week available but the initial allocation step provided only 558.26 hours to the segment. This leaves 30.52 hours per week available for the segment. These hours were distributed equally among the less-than-group-efficient plants. In some cases, this provided more hours than needed to bring a plant back to its 1996/97 allocation. When this occurred, the plant received the lower of the 1996/97 allocation or the new allocation.
4. When the foregoing resulted in unallocated hours for one or more plants, then the unallocated hours for the group were summed and divided equally among the remaining plants.

This procedure appears to overcome the objections the OIMPP had with the initial mechanism. Not surprisingly it allocates more hours for 1997/98 to those plants in each segment that used inspection hours more efficiently than did the original MIIB procedure. Similarly, less efficient plants often receive fewer inspection hours.

To summarize the principles of the procedure, plants are first organized into segments based on size and type of operation. Available base hours for 1997/98 are allocated to each segment based on use in 1996/97. Plants within a segment that were at or above the segment average efficiency in 1996/97 receive the same number of hours in 1997/98. Those below the segment average share any reduction in hours.

Inspection hours will be “bankable” in the sense that they can be used anytime during the year; there is no requirement to use one-quarter or any other portion of a plant’s hours in a given quarter. The accounting will be tallied at the end of the fiscal year.

Individual plants will be given their allocations based on the foregoing procedure. There will be an appeal mechanism through a review and appeal committee made up of three representatives each of the OIMPP and MIIB.

The foregoing procedure cannot, obviously, account for extraordinary changes such as plants that started up part way through the year in 1996/97, that were unexpectedly closed during part of the year, those with significantly expanded capacity for 1997/98 relative to the previous year, those which experience growth in throughput during the current year, or those with a poor record of

¹In the actual table, the actual allocation is above the level available for several of the segments. There are two reasons for this. First, some plants have already been allocated additional inspection because of known growth in their operations. Second, a number of plants for a number of reasons require more than one inspector and these are added into the allocations.

conforming to inspection standards and who require additional inspection in order to preserve the image of a safe food supply. These situations are addressed in the following sections.

2.2 Inspection for Plants With Increased Throughput

OMAFRA and OIMPP have agreed that plants which have growth in their business will be able to have additional inspection at no private cost and that this additional inspection should not be taken from what is currently available. MIIB's 1997/98 budget, while not yet finalized, will as suggested above provide just over 150,000 hours of inspection. If all of this is required at last year's level of output, plants that use inspection efficiently and experience business growth in 1997/98 will not need to pay for additional inspection hours. The principles of allocation in this case are:

- Plants that grow and use inspection at or above the average rate for their segment receive additional inspection hours at no cost and based on the same rate as their 1997/96 rate. Growth is defined as the change in plant throughput as measured by the number of animal units processed in a year.
- Plants that grow and use inspection at a rate lower than the average for their segment receive additional inspection hours based on the segment average. Any additional hours will be paid for as explained in section 2.4 below.

In order to implement this component, MIIB will provide information quarterly to all plant managers detailing their base allocation, their use to date, the number of animal units processed, the hours that are available for the remainder of the year and their efficiency rate. Plant managers can also update their records when they initial Form 217 which is completed by the inspector daily at the completion of slaughter.

2.3 New Plants

As with existing plants, any new plants are eligible for a complement of inspection hours at public expense. At the same time, OIMPP and MIIB want to encourage the efficient use of inspection hours. Therefore, the allocation rule for new plants is that they will receive inspection hours on the assumption that they will use hours at the higher of the average rate for all plants in 1996/97 or the average rate for their segment. The average rate for all plants is the average rate for the 20,000 - 40,000 AU per year. Thus a new plant that expects throughput of, for example, 10,000 -20,000 AU per year would receive an allocation of inspection hours based on the average rate for plants in the 20,000 - 40,000 AU range, not the range of the plants in their own size range. However, a new plant that expects to put thorough 80,000 units would be allocated inspection hours based on that segment's rate.

Because allocation to new plants and growth in throughput at existing plants has been an area of concern for the industry, it is important that the agreement on how to allocate hours for them be clearly understood and summarized. As indicated above, the general principle is that the

Ministry agrees to pay for all new hours for these purposes, so long as plants use inspection hours at least as efficiently as their segment, in the case of expansion, or the more efficient of their segment or the industry, in the case of new plants. In the case of expansion, it is to be measured at the end of a fiscal year and the measure is the plant's number of animal units. Inspection hours for growth and new plants are to be paid for in addition to the basic inspection allocation that is available as explained in section 2.1.

Because MIIB needs to estimate its total annual cost, it is recommended that MIIB and OIMPP jointly forecast the number of hours for growth and new plants at the beginning of each fiscal year based on what they jointly know about the industry. **But to reiterate, in the event that actual growth or new plant development is greater than the forecast, it is the Ministry's responsibility to provide the additional requirements.**²

2.4 Paying for Additional Inspection Hours

For those plants which are unable or unwilling to make adjustments in their business to bring their operation up to the efficiency of their segments, it will be possible to buy additional inspection hours. Plants that are deemed to need more because of poor food safety records should be required to buy them. There are a few particular plants that require inspection intervention to determine the compliance inspection hours for the implementation of the latter principle.

We are assured by MIIB that it is in a position to coordinate the availability of "private" hours. Again, with the additional information that now will be made available by MIIB each quarter (discussed in 2.2 above) and the opportunity to update it with the daily form 217, managers will know their situation throughout the year.

For those plants that use more hours than they are allocated (except where there is growth in throughput as explained above) will be billed for the extra time at the end of the fiscal year. Extra hours will be billed at the per diem rate, which for 1997/98 is \$20 per hour. It needs to be reiterated that any extra hours must be booked through MIIB. Inspectors who make private arrangements to work extra time at reduced rates and not under the supervision of MIIB will have their contracts terminated.

An additional agreement has been made between OIMPP and MIIB regarding fees for overtime, emergencies and holidays. These will be billed by MIIB each month. Managers will receive a receipt. The time used in billing and collection will not be included as basic inspection time, but will be paid for by MIIB. If accounts for this purpose are not paid within 60 days, further allocation of hours for overtime, emergencies or holidays will only occur if the payment is made.

² MIIB has forecast that the requirements for 1997/98 will be 5000 hours for new plants and 1500 hours for growth, but there has not been a joint meeting with OIMPP to refine the forecast.

The ministry, and the provincial government, need to ensure that their accounting systems credit MIIB for any revenue received under either of the two situations discussed above. Extra hours for inefficient use of the resource, overtime, emergencies and holidays are not part of what the public is paying for and are not to be deducted from the pool of hours paid for by public funds. Therefore, the Branch needs to create a revolving fund to pay for overtime and emergencies.

On the other hand, in the event that 1997/98 does not require allocation of all the budget that is available, any excess should be used to supplement training of inspection staff, meat safety audits, and/or assisting plants to move toward HAACP systems.

2.6 Multi-Inspector and Large Poultry Plants

A few plants provide particularly thorny problems if inspection hours are allocated using the principles outlined in this report. These include a few of the larger plants that have multiple inspectors and the largest poultry plants. For various reasons neither group fit well with the efficiency approach used here. OIMPP and MIIB agreed to allocate inspection to them on a case by case basis in the short term. Over the next year, MIIB needs to undertake an inspection intervention to determine a logical basis for measuring efficiency and allocating inspection hours. One aspect of the allocation procedure will be to accredit plants to allow them to perform some aspects of the inspection process under the supervision of the Branch.

3.0 Longer Term Aspects of the Ontario Meat Inspection Program

In this section, we summarize the direction that will be taken by the provincial inspection program based on the document, *Ontario Strategy for Meat Inspection*, discussions with senior management of the branch and ministry, and additional agreements that have been made between the branch and OIMPP regarding illegal slaughter and “free standing” meat processors .

3.1 Vision

The planning document has a statement of vision that is summarized below in our words:

Animal and meat-borne risk is managed in ways that enhance competitiveness of the Ontario meat industry by protecting consumer safety and international market access. This is done through a regulatory framework that allows processors to conduct their businesses so that meat safety is assured.

To achieve this vision, the branch described the current and expected future operating environment they face and expect to face. They then identify four strategic initiatives that define how they expect to operate within the expected operating environment. These are addressed below.

3.2 Major Aspects of the Operating Environment

1. Legislation currently requires meat inspection. It is believed that it should continue to be required, because without it there can be inappropriate behaviour by a few within the industry that may ruin the market for everyone. Moreover, international trade laws require evidence of disease-free status, one of the functions of provincial inspection. Without it, Canada could lose access to foreign markets. In fact, provincial standards are likely what will determine market access in the futures
2. Ontario's vast geography has been a roadblock to efficient delivery in the past. Collective bargaining units achieved full-time ratings for inspectors, whether that was most appropriate or not. With budget pressure, this led to the KPMG study (discussed in our previous report), and on-going workforce adjustment. The meat inspection audit program was also contracted out, reducing the number of full-time vets in MIIB.
3. Pressure to reduce and avoid costs. Cabinet has cut the Ministry's and the Ministry has cut MIIB's budget substantially, and continues to in 1997/98. This leads to the pressure to reduce internal costs, operate more efficiently, and reduce inspection hours, all of which have been accomplished over the past few years .
4. Part of the budget pressure means a move to cost recovery. This means development of some rationale for what is public and what is a private good. It also puts on pressure to penalize plants which make inefficient use of inspection time - eg. in poultry plants, the KPMG study found inspection costs range from \$.24 to \$3.57 per unit because of volume and other aspects of plant efficiency.
5. International trade rules and regulations of other countries mean a move toward HACCP - even including farm producers; the US mega-reg requires even the smallest plants to implement HACCP in the year 2000. This means there will be increasing pressure on the industry to move toward HACCP and move some of the inspection work from the MIIB to industry.

3.3 Strategic Directions

The foregoing leads to five strategic initiatives:

1. Significant budget reduction without compromising food safety. This has already been initiated. In the first phase, the number of inspectors in high volume plants was adjusted. In the second, full-time inspectors who were not staffing full-time operations were laid off. In addition, costs of operation, supervision and support have been measured and reduced. The final phase is to introduce some form of cost recovery to reduce demand for the service and to level the playing field with federally inspected plants.

2. Reduce government involvement in direct delivery, and concentrate remaining resources on setting standards and monitoring. When read in total, the 1992 Ontario meat inspection regulations tend to shift responsibility for all aspects of food safety from government to industry, especially since those changes have not been debated publically and their implications are not clear to most people in the private sector. This is an extremely important shift in policy because it shifts the burden of responsibility. It means that plants will be encouraged to move toward HACCP, and toward performance of some ante-mortem and post mortem and other inspection activities under government supervision. The ministry expects, therefore, to contract inspection protocols on a plant by plant basis.
3. Continue to harmonize standards and inspection systems with other governments. GMP legislation is being developed by the federal government with the intent of a buy-in from all provinces. There needs to also be a buy-in from Medical Officers of Health. This means gradual movement toward an integrated national inspection system. This means common inspection standards and processes. It will be easiest to accomplish this if industry moves toward HACCP.
4. Re-design laboratory programs and reassign costs where possible. This means find new, cheaper quicker tests, pass costs of tests off to users (eg trichinella to wild boar producers), focus on what is most strategically important, reduce number of samples, etc.
5. In Ontario, there must be much more focus on regulating illegal slaughter and free standing meat processors. There are several aspects of this problem. With respect to illegal slaughter, the industry is extremely concerned that there is no capability to investigate complaints in a timely fashion, so that the evidence of uninspected meat may have already been sold to a consumer. Second, there is a concern that meat from “on-farm” or “custom” slaughter is sold at retail with little or no inspection. Third, further processing, especially in “free standing” locations is nominally under the jurisdiction of municipal health authorities. OIMPP feels that the emphasis is on the word nominal since there are ill defined protocols that are rarely applied.

There is increasing concern among consumers about food safety, especially with recent problems regarding BSE in the U.K., e-coli outbreaks in the U.S., and the risk of meat borne disease associated with recent events in Taiwan, Holland, Belgium, etc. There can be tremendous harm done to the human population and economic dislocation to producers and processors if there is an outbreak of disease caused by irresponsible meat handling and/or inspection. In addition, those who avoid inspection have a cost advantage over those who abide by them, making it more difficult for those who act responsibly to be competitive.

Of particular concern is the unfortunate attitude of the current provincial Minister of Health regarding on-farm slaughter and the need to enhance inspection of further processing. It seems to reflect a nostalgic, naive and dangerous 1950's view of the issues and potential consequences of the current system.

4.0 A Concluding Comment

In addition to continuing to work together to implement the changes to the allocation of inspection resources that are outlined in section 2.0 of this report, it is imperative that OIMPP and MIIB initiate a planning process that decides on and implements a process for responding to the issues identified in section 3.0. It must be a process that is strategic and not just responsive to short run budget pressures. For example, while they would push to further reduce public involvement in meat inspection, the 1995 GATT agreement concluded that public expenditure on meat inspection is “green” - ie. it is an instrument of public policy that can be undertaken without fear of penalty by importing countries. In fact, inappropriate food inspection systems, including at the provincial level, or the outbreak of food borne diseases are grounds for losing access to foreign markets. We live in a time when Canada’s red meat industry is gearing up to meet the growing demand for meat in Asia and, as pointed out above, in a time when consumers everywhere are increasingly concerned about food safety. Therefore it may be down right short sighted and stupid to save a few hundred thousand dollars on meat inspection if it increases risk of losing a few billion dollars of domestic and export business for the economy.

Hence it is necessary and timely to move rapidly toward a process that defines the kinds of questions that arise from the issues discussed above:

- What are the public and private goods involved in meat inspection?
- How should costs be shared between public and private interests?
- Who should perform inspection services?
- How should federal and provincial standards differ?
- How soon and by what path should provincial plants move to HACCP programs?
- How can illegal slaughter and free standing processors be controlled and regulated effectively and how can this be done with multiple jurisdictions?

These and other questions need to be answered ...soon. The two parties need to identify a process for resolving them and the process needs to have very specific goals, bench marks and time lines.