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MEMORANDUM

TO: Members, Legislative Audit Committee
FROM: Tori Hunthausen
DATE: October 11, 2001
RE: Assessment of the Department of Revenue's Process Oriented Integrated System (POINTS).

During the June 26, 2001, Audit Committee meeting, a request was made for Audit Division staff to compile information and provide the Committee an independent assessment of the status of the Process Oriented Integrated System, administered by the Department of Revenue.

Attached please find the results of our work. We will be discussing this assessment at the October 18, 2001, meeting. If you have questions please call me at 444-3122.

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Legislative Audit Division
Process **O**riented **In**tegrated **S**ystem **(POINTS**)
Department of Revenue
Special Project 02sp-39
October 11, 2001

Introduction

The 1997 legislature passed HB 188, which included authorization of $14 million in bonding authority for the Department of Revenue (DOR) to develop an integrated revenue and tax system. HB 15, passed during the 1999 legislature, provided an additional $18 million in bonding authority to complete the project and realign the department's business processes.

On June 26, 2001, the Legislative Audit Committee requested Audit Division staff compile information on the Department of Revenue's Process Oriented Integrated System (POINTS), and provide an independent assessment of the status of the system. Our assessment included the following:

- Interviewing departmental employees
- Interviewing non-departmental users of the system, specifically Department of Labor and Industry staff
- Reviewing contract documents, including the Statement of Work and the System Integration Agreement
- Reviewing Conceptual and Detailed Design Documents
- Attending POINTS system navigation training
- Reviewing POINTS defect logs
- Obtaining an understanding of the defect remediation process
- Reviewing regression test results
- Observing business processes

Expenditures related to the ongoing development of POINTS have occurred during fiscal years 1998 to present. As of June 30, 2001, the department had spent $23,431,628 (73%) of the total authorized bond proceeds. In addition, the department estimates it has spent in excess of $4.7 million on direct POINTS development costs from sources other than bonding, primarily for personal service costs for department employees dedicated to the project during the past four years.

Background and Influences

> *Observation: The department undertook several major efforts during the same time frame, adding complexity to the development of POINTS. These efforts impacted the work environment of both the department's business and technical staffs.*

Project META:

In 1997, DOR engaged in a business process re-engineering effort. Project META (metamorphosis) is a comprehensive, long-term change program undertaken by the department, to transform the way it conducts business both internally and externally. Two primary objectives of META are to:

- strengthen customer service through redesigned processes and enhanced technology; and,
- improve the net financial results for the State by collecting what is owed from taxpayers more efficiently.

Business Process Re-engineering:
DOR conducted organization/workplace redesign to support the re-engineered business processes. Previously, DOR's workforce was organized along tax types. As the department realigned its core processes, it moved from a 'tax type' focus to an integrated 'account type' concept. This business process re-engineering was considered in the design of POINTS, and required staff responsibilities to realign as well.

Wage Based Tax Consolidation:
In 1993, then Governor Racicot initiated a study of unemployment insurance (UI) and withholding (WH) tax, resulting in a task force recommendation to consolidate the functions. The intent was to have Montana employers begin using the combined UI/WH returns for the first quarter of 1999. To start this process, the 1997 legislature consolidated the wage-based tax reporting and collection functions of the Department of Labor and Industry (DOLI) and DOR. The Montana Simplified Tax and Wage Reporting System (STAWRS) project was also initiated to combine business and wage filings to the State and Federal governments, collecting UI/WH information on a combined form.

POINTS:
Integral to META is POINTS, considered to be the infrastructure that would enable the department to realize process-oriented and customer-focused business.

POINTS is a customized software application. According to department personnel, the 20 stand-alone, autonomous computer systems previously used to support business functions could not exchange information, were not year-2000 compliant, were poorly documented, and contained extensive amounts of redundant data. By using a single, process-oriented computer application (POINTS), each customer is registered once, with all associated account type information. The design of POINTS is intended to maintain an integrated view of each customer and their respective account(s) information. Ultimately, the integrated view would provide efficiencies for:
- enhanced customer service,
- reduced data redundancy, and
- improved compliance capabilities of the department.

Evolution of POINTS Development:
POINTS was planned to be developed in two major phases. POINTS I development, which began in May 1998, was to replace eight of the department's existing systems (legacy systems), support wage-based account types (UI/WH), and provide the 'foundation' to support the common business functions for each of the remaining account types. POINTS II is an extension of POINTS I, intended to add property and individual/corporation tax types to the application.

The request for proposal (RFP) initiated for POINTS I was sent to prospective vendors in November 1997. The following depicts the schedule of events:
- Issue RFP   11/28/97
- Deadline for written questions   12/18/97
- Written Answers distributed   12/24/97
- Proposals Due   1/26/98 (extended from 1/5/98)
- Contract Award   3/05/98
- Contractor on site   4/06/98

The scope of POINTS I work entailed in the RFP included the design, development, and implementation of a process-oriented, integrated tax system. The system was to support the wage-based taxes, with the intent that other taxes types would be included in future phases subject to funding availability. The RFP also included a needs analysis for property valuation. The needs analysis would be a starting point for a separate RFP, or negotiation with the POINTS I contractor, for developing the property valuation portion in a later phase.

The contract for POINTS I was signed on March 26, 1998. The fixed price for the contract was $10,990,239. The Statement of Work (contract) was a cooperative-type agreement where the responsibilities and the work were shared between the department and the contractor.

The POINTS I 'foundation' included the development of five CORE modules:
- Registration – Captures basic customer information, including which taxes affect the customer.
- Forms and Correspondence – Production of standardized department forms and correspondence for mass mailing to customers, including experience rating reports, quarterly tax statements and statements of account.
- Returns Processing – Captures information from the tax return and records it in the system according to customer account.
- Accounting – posts payments to individual accounts, tracks balances, creates refunds and posts payments to the State's revenue accounts. This module exchanges information with the Statewide Accounting, Budgeting, and Human Resource System (SABHRS).
- Case Management – Used extensively for collections and audits, and to track case information based on individual accounts.

Defect Management

> *Observation: POINTS is still not operating at design specifications. For the past twenty-two months, DOR has been operating in a systems development and production environment, identifying mission critical defects and working on resolution, while supporting business functions, and performing workarounds. Adding additional account-type information and corresponding department business rules will compound the complexity and lengthen the timeliness for correcting defects associated with core modules. Many department personnel question the long-term stability of the core modules. Stabilization of POINTS I is essential to a successful migration of additional account types onto the system.*

The Statement of Work, dated September 1998, states:
> "The teams will make a determination of which defects must be corrected prior to implementation and whether the problems can be corrected before the scheduled implementation date. In the event the problems cannot be corrected, the earliest achievable date will be selected as the new implementation date. Defects not considered critical to the operation of the system will be corrected during the six-month warranty period."

POINTS I was placed in production in December 1999. Since implementation, system users indicate that anticipated processing efficiencies have not been realized. Rather, throughout its twenty-two month life cycle, POINTS has had a number of defects, many of which are critical to the mission of the department.

On December 3, 1999, the decision was made to place POINTS I into production, while still having over 200 identified defects, 91 of which were deemed priority 1. According to department personnel, upon implementation, DOR had 22 days to decide whether to accept the system or reject it. They explained that DOR was aware of functionality that was not working upon implementation. For example, refund generation and generating direct deposits were not working. Although critical to DOR, the management team believed these critical functions could be operational in a short time frame and with minimal impact to the business processes. Refund generation remains a problem area.

Defects are referred to as problems identified with the system's failure to perform tasks as designed. For the first seventeen months, defect remediation equated to crisis management. Separation between a system defect, an enhancement, or a training issue, was not always apparent, nor was the priority of resolution always considered. Since August 2000, the department has been managing defects remediation with both in-house and seventeen supplemental contract programmers at the department's estimated cost of $90,000-100,000 per month. In November 2000, the department acknowledged the extraordinary effort needed in relation to system defects, and formed a blitz team. The blitz team's attention turned to critical defects. Critical defects were being remedied; however, additional defects not previously identified were also being discovered as functionality expanded and the user learning curve expanded. In May 2001, management recognized the need to refine the defect management process. The new defect management process improved the logging and prioritizing of identified defects. The POINTS action line (PAL) team was established as the first point of user contact, rather than contacting the programmers directly. A super-user network relies on process expertise to train staff in system use.

A key addition to the defect correction process is monthly regression testing. Regression compares any potential change in programming, with the impact it might have throughout the entire system. The goal is for corrections that fail regression testing to not make it to production. Previous to regression testing, it was common to repair a defect and place it into production only to find that the repair introduced defects in other modules. During the ten-week period from July 20, 2001 to September 28, 2001, the department conducted three regression cycle tests. Reviewing the department's on-line defect management system, referred to as HEAT, we tracked progress in addressing defects throughout the ten-week period.

As of September 28, 2001 there were 552 reported defects/deficiencies outstanding. The following identifies the department's ranking from mission critical to system enhancements.

Mission Critical:	205
Priority 1:	119
Priority 2:	54
Priority 3:	43
Priority 4:	8
Defects:	429
Enhancements:	123
Total Reported	552

Based on the defect descriptions on HEAT, it is apparent these defects are impacting the ability of the system to perform accurate or normal processing. The causes of the defects can be in a number of related areas, including:
- program coding is not allowing for accurate processing of data;
- department business rules have changed and the code has not been updated; and,
- not all business processes are included in the code.

During the ten-week period, some defects were fixed and closed; however, there were also a number of new defects reported as shown below. These new defects are included in the reported total of 552.

Testing Status
July 20, 2001 to September 28, 2001

Defect Ranking	Fixed	Reported (New)
Mission Critical:	31	52
Priority 1:	20	20
Priority 2:	6	7
Priority 3:	2	5
Priority 4:	0	2
Enhancements:	10	22
Total	69	108

Many of the POINTS I defects may also have an impact on POINTS II. The department's POINTS II team has identified a significant number of defects that may impact the critical path to implementation of POINTS II. The majority of these are in the Accounting module.

We interviewed staff on the subject of the defect management process, focusing on user involvement in and understanding of defects processing and overall management. The interviews indicated 29 of 33 users are aware of the process and points-of-contact. Users noted defects ranking does not always relate directly to the workload priorities. As POINTS defects develop, staff indicates that the capability to perform work is limited and in some cases halted until the defect is fixed.

Progress towards defect remediation is difficult to quantify. Although the department has implemented a process to prioritize defects and identify those considered mission critical, there are system design impairments effecting the timeliness of corrective action. Personnel describe the structure of the programming for POINTS as extensive and difficult to follow. For example, programming sub-routines are not easily identifiable. The system is designed with programming 'packages' within each core module. Personnel explained the enormity of intelligence coded within a given package. Only one programmer can work in a package at a time. This is a control established to protect the integrity of the fixes being made, without another programmer over-writing code. Therefore, when identified defects co-exist in the same programming package, multiple programmers are prohibited from working simultaneously within the same package. These limitations extend the time needed for efficient diagnosis of problems and changes. Maintenance teams expressed the need for several months of uninterrupted focus to correct POINTS I defects.

Data Conversion

> *Observation: The data on POINTS has errors introduced at the time of conversion and compounded by system defects. Accurate and complete data is essential to the stability of POINTS. The Data Focus Group's efforts to correct data errors require technical and business staff involvement, shifting some employee resources to data errors. Data Focus Group participants are also working on defect resolution.*

Whenever new systems are implemented, it is necessary to convert old files to the new format, often a database, so the new system can be put into use. DOR and the contractor shared responsibilities for developing programs to extract data from the legacy systems and create files to load to the new POINTS database. Starting in September 1999, the intention was to conduct a full conversion load test. After three failed attempts and performance problems, only a partial load was achieved in the test environment. In October 1999, the first full conversion load was conducted for beta implementation (production); however, problems resulted and a second attempt was required. Staff explained there were numerous problems with the data extracted from the UI and Withholding systems. In some cases a mini-program was written to clean the data. Other problems required either a partial or complete reload of data.   In November 1999, two more data loads were attempted. The second full load was completed; however, staff indicated DOR was continuing to identify conversion data problems. At November-end, 1999, DOR evaluated the known data problems, and staff explained the errors were not critical enough to stop implementation, considering year 2000 compliance and the department's business cycle.

Staff indicated data problems have plagued the POINTS I production system since it was implemented. The data problems are described as: inaccurate and incomplete data converted from legacy systems; defects in the POINTS I application; and DOR data scripts and program fixes intended to correct other problems while actually introducing new data problems. Examples of conversion problems indicated on the HEAT system include:

- a year 2000 glitch within the delinquent accounts receivable system that was not fixed prior to conversion; therefore, converted receivable amounts for delinquencies were overstated;
- a developer application upgrade was possibly migrated incorrectly, causing loss of logic code due to an out-of-space table condition;
- a conversion program needs to be changed to correctly store line item type data;
- the possibility of the wrong data source for particular extractions; and,
- different customers were assigned the same customer identification numbers.

In September 2001, a department Data Focus Group was formed comprised of DOR staff. The mission of the group is to focus on data integrity issues. We attended the first two meetings of the Group on September 10 and October 1, 2001. The consensus of the Group is that data integrity is a high priority since good data is necessary in POINTS I in order to move towards POINTS II. Members of the Group are making progress quantifying the extent of the data problems; however, some of the data goes back to 1998 leaving no good starting point to make comparisons. Apparently, there was bad data on the legacy systems; however, there was also the ability for staff to manually intervene and adjust data. System generated adjustments are designed in POINTS, limiting a user's ability to fix data 'on the fly.' The Data Focus Group is looking at the cause and effect of each data problem type to get an idea of how many errors exist and to determine how to correct the data along with the underlying defects producing data errors.

Training/Performance

> *Observation: In general, staff indicate customer service seems to be less effective with POINTS because users either cannot find information due to defects, or the system information is too inaccurate to be useful for timely response. DOR needs to produce not just a working system, but surround it with effective user procedures and trained and receptive users.*

To determine whether POINTS is being used to perform daily functions, we surveyed the users, both department and non-department personnel, to determine whether the system is being used to conduct business or whether users are performing workarounds to conduct daily business. We randomly selected 60 interviewees from a list of 450 POINTS users and contacted and interviewed 51. We considered position responsibilities, and based on how staff described their use of POINTS, categorized as follows:

User Category	# Interviewed	% of Sample
Have Not Used	18	35%
Minor Users	15	30%
Major Users	18	35%

We selected our sample from a department provided list of users. As noted above, 35% of our sample indicated they do not use the system; however, they offered their opinion based on the information provided them along with the users. It is possible these individuals need additional training to promote further use of the system, or truly do not have use for the system in their daily job. The department should reevaluate its POINTS Users list and determine whether the individuals listed require access to perform their job, and if so provide appropriate training.

Based on the results of our interviews, many users indicate they have not realized process efficiencies, effective compliance enforcement, or technology advancements that were promised. Users indicated that system defects in design and capabilities are not totally responsible for the current status. Department reorganization and realignment to a team concept created staff uncertainties regarding daily responsibilities. At the same time, reassignment of UI activities to DOR added to workload confusion.

We rated minor and major user comments regarding effectiveness of POINTS as poor, adequate, or good. Generally, interviewees were comparing POINTS to the legacy systems, defining a poor rating as:

- Not as easy to use (user friendly)
- Takes more time because there are more screens/ menus/ or
- The data used is less accurate and requires verification/update.

Effectiveness received 19 poor, 10 adequate, and 4 good ratings. The primary concerns related to the reduction of customer service. Some example problems include:

- Employers are not advised of correct unemployment insurance rates,
- Tax collections are more difficult to pursue,
- Refund checks must be reviewed manually to avoid duplication,
- Statements of account (tax bills) are not correct,
- Audit assessments cannot be verified, and
- Duplicate identification numbers delay customer service.

Users indicated the department's approach to training was not effective. It was provided when the modules were not functioning, was generic in content, and was not timely. Similarly, the approach used to prioritize system defects has not adequately considered workload having the most direct impact on staff and customers. Consequently, staff "buy-in" to POINTS implementation and use was not adequate.

POINTS I Processing

> *Observation: System functionality does not work as designed creating backlog and increased workload beyond ordinary business.*

As discussed earlier, in addition to building the core modules for the foundation, POINTS I is intended to support unemployment insurance and withholding taxes. We asked management to evaluate the department's workload that is not being accomplished and backlogs that are accumulating due to the implementation of POINTS. According to management, wage-based taxes and related work are most severely impacted, requiring extensive manual intervention to process these accounts.

Management's estimate of staff time needed to resolve 18 separately identified backlogs impacting wage-based accounts range from 20 to 18,000 hours each, once correlating defects are repaired. Management indicated, however, that as a customer's account is reviewed, separate backlog resolutions may overlap and will be resolved simultaneously.

Although individual and corporation tax accounts are not included in the scope of POINTS I, the inability to issue accurate statement of accounts and timely refunds also impact the department's backlog associated with those account types.

Management indicates that as part of its systematic plan to review and revise its internal control procedures, it is developing a work plan to resolve these backlogs and stay current with day-to-day work.

POINTS II

> *Observation: Defects that are currently being worked in POINTS I, may or may not impact the account types developing in POINTS II; however, POINTS II may introduce additional defects upon the foundation that could effect all account types. There are tax specific defects, and common processing defects. Introduction of additional account types to the foundation would have a major effect on resources and the ability to stabilize POINTS I.*

On July 26, 1999, an addendum to the original contract was signed for the contractor to develop requirement definitions for Property Tax and Income/Corporation Tax. This expansion of the original project is referred to as POINTS II. Addendum I included a fixed price of $1,546,380. The target date for the requirement definitions for Income and Corporate Tax was December 31, 1999 and January 31, 2000 for Property Tax. Addendum II was signed June 30, 2000, to develop software for the Property Tax and Income/Corporation tax applications for a total cost of $10 million.

As explained earlier, POINTS I is to establish underlying core modules to support varying account types. Business rules common to account types are coded within the modules. Tax-specific rules may be add-ons to a core module. As account types are added to the foundation, functionality (business rules) specific to the tax type is coded within the core modules. Department personnel explained that the POINTS I database is actually replicated in its entirety (copied defects and all) for development of POINTS II. As defects are rectified in POINTS I, they are reconciled to the development database for POINTS II. Development will always occur in a mirrored environment; therefore, personnel explained that when POINTS II is placed in production, POINTS I will no longer exist.

> *Concluding Observations:*
> *Continuing to work in the POINTS environment (with workarounds and fixes in major defects) is necessary. POINTS I is supporting the wage-based taxes, all customer registration, and all revenue accounting. Returning to the legacy systems is not practical, given the re-engineered business processes and the department's reorganization efforts. Since the system has been used to conduct business for the past several months, the possibility of re-converting data is not likely. Prior to conversion, customer totals were tracked in different computer systems depending on the tax type. POINTS will post all tax revenue types to one customer account.*
>
> *On an annual basis, the department is faced with an intricacy of deadlines to conduct its business. When reviewing the department's 2001 Key Date Calendar, there are 112 days throughout the year listing a deadline to meet including reporting requirements, revenue distributions, and processing of returns and payments. Due to the nature of DOR's business cycle, the complex relationship of tax accounting rules, business practices and federal government regulations for which department has no control, it is difficult for the department to operate in this systems development environment.*
>
> *Inaccurate and incomplete data must be fixed. Both incorrect data and defects are causing transfers of money, causing time-consuming manual account reviews. Even after manual review, users indicate system-generated adjustments sometimes move the money again. The erroneous penalty and interest calculation is resulting in inaccurate statement of accounts, which cannot be mailed to customers without individual review. These defects must be rectified to provide users the ability to conduct their work.*
>
> *The department cannot provide a timeframe for obtaining stability in the core modules. This information is necessary to move forward in establishing the future operating capability of the system. As part of its maintenance plan, the department recently hired a consultant to provide an estimate of when and how POINTS I will become stable.*

A reassessment of system capabilities could determine which remain unfulfilled, and those that may never be implemented. Although defects have been prioritized from mission critical to enhancements, analyzing the business process flow and separating system capabilities into "must do", "should do", and "could do", makes good sense. Despite the promises of system functionality, and the overwhelming demands currently placed on DOR staff, the current system is not stable enough to handle the increased complexity of new tax types and business rules.

<u>Summary</u>

In the past five months, the department has acknowledged the need to refine its defect management process, has established a Data Focus Group to concentrate on data integrity issues, and has introduced monthly regression testing to mitigate new defects resulting from defect repairs. Critical decision points related to assurances that DOR business processes will function accurately are needed. Stability, accuracy, and completeness in core modules are needed in order for there to be positive movement toward the department's original goals of:

- enhanced customer service,
- reduced data redundancy, and
- improved compliance capabilities of the department.
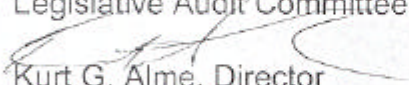
Director's Office
Sam W. Mitchell Building

Montana Department of
REVENUE

P. O. Box 5805
Helena, Montana 59604-5805

DATE: October 18, 2001

TO: Chairman Tester and Members of the
           Legislative Audit Committee

FROM: Kurt G. Alme, Director

RE: Department Response to Auditors' Evaluation of POINTS

Thank you for this opportunity to respond to the Legislative Audit Division's assessment of the department's Process Oriented Integrated Systems (POINTS) Project. On balance we believe the assessment presents a fair and balanced review of the project to date. We also appreciate your auditors' professionalism in the course of their review of a wide range of project details; they were able to do so with minimal disruption.

In this response, we will offer our comments on the observations and concluding observations in the order they appear in the Special Project Report, dated October 11, 2001.

1. **The department undertook several major efforts during the same timeframe, adding complexity to the development of POINTS.**

   Response: The history of the department's reorganization and concurrent efforts to replace our computer information systems is accurately described on pages 1 through 3 of the report. For purposes of context, these two undertakings, the reorganization and the broad-scale replacement of the many department legacy computer systems, represent the two largest challenges the department has undertaken since the evolution of the department from the old State Board of Equalization structure in 1973. Both of these challenges, while disruptive in the short term, had to be undertaken jointly to achieve a long term goal of improved customer service, operating efficiencies and a more effective approach to compliance with Montana's tax statutes.

2. **POINTS is still not operating at design specifications. For the past 22 months the department has been operating in a systems development and production environment . . . Stabilization of POINTS I is essential to a successful migration of additional account types onto the system.**

Response: We agree that it has been difficult to operate in both environments – system development and daily production. This has been made especially challenging given the demands on our staff to support both responsibilities in an environment where the system is not operating as designed. This results in extensive manual intervention into what would otherwise be automated processes. The report accurately describes the evolution and refinements in the defect remediation process and the iterations of our efforts to resolve the large numbers of serious defects in the application. Briefly, these iterations included a request of the contractor to extend the original six month warranty provided under contract (extended an additional three months at no additional cost), supplementing our IT staff with contract programmers, a concentrated "blitz" effort in the late fall of 2000 continuing to early 2001, to our most recent efforts to refine the process of stabilizing the application. In May of this year we made a number of additional refinements to the process including:

- Realigning management by designating a senior department manager responsible for coordinating the POINTS production and development efforts.
- Refining the defect reporting, classification, prioritization, and tracking processes, including a complete review and reprioritization of all outstanding defects to address the most critical department and customer needs.
- Establishing a network of "super users" throughout the department as a frontline contact/testing/training network.
- Improving regular communications on the status of current functionality, defects, and progress on repaired defects focused directly to the work units impacted.
- Refreshing training materials and curriculum by providing both ad hoc training as required at the process level and more global orientation to all of the modules in POINTS. This training has been provided to a wide range of department staff from super users to senior management and external users. These courses are available to all users and will be supplemented with role specific training materials in the future.
- Implementing a monthly cycle of regression testing to confirm defect repairs work in a simulated production environment before they are migrated into daily production. In this manner, we mitigate the potential of introducing new defects.
- Finally, to ensure we optimize our efforts in this area we have recently hired an expert in software engineering, Dr. Joel Henry. We have asked him to critically review all aspects of our present processes, assist us in quantifying and outlining the best approach to achieving stabilization, and help us develop a long term maintenance plan.

We will continue to aggressively pursue POINTS stabilization until it is achieved.

3. **The data on POINTS has errors introduced at the time of conversion and compounded by system defects.**

   Response: The report accurately describes the problem and the categories: converted data, bad data created as a result of defects, and bad data introduced by scripts run attempting to clean up other data fields. This is a serious problem and we are currently developing plans to attack the issue. This week, two teams of programmers and key business users are continuing to analyze in more detail the technical issues surrounding this problem. Out of this effort we will develop work plans for teams of developers and business users to rectify the data issues in a manner that best fits into overall project maintenance.

4. **In general, staff indicate customer service seems to be less effective with POINTS because users either cannot find information due to defects, or the system information is too inaccurate to be useful for timely response. DOR needs to produce not just a working system, but surround it with effective user procedures and trained receptive users.**

   Response: We agree that these are precisely the things we need to do and we are working diligently on all three fronts:

   1. Stabilization - as previously discussed under defect remediation;
   2. User procedures - our Change Management Team is working with the processes to develop detailed process work flows, monitoring reports and user procedures for all major tax types and liquor functions within the department; and
   3. Training - also as previously discussed, on the job training is being provided by super users located on each team, global training is currently being provide and role-specific training is being developed.

5. **System functionality does not work as designed, creating backlogs and increased workload beyond ordinary business.**

   Response: We agree that the defects in the system come with a consequence to both our staff and our customers. This is a very stressful situation and we work every day to mitigate adverse impacts on taxpayers and still meet our many deadlines. The greatest impact has been our need to manually intervene in the production of statements of accounts (bills) and refunds in the wage-based tax areas. We have provided the auditors a detailed estimate of these backlogs as of last month. Between then and now we have repaired a significant defect that is now allowing us to send our statements of account. We are also developing work plans in the impacted teams which will address both the daily demands and the backlogs.

6. Defects that are currently being worked in POINTS I may or may not impact the account types developing in POINTS II; however, POINTS II may introduce additional defects . . .   Introduction of additional account types to the foundation would have a major effect on resources and the ability to stabilize POINTS I.

Response: Development must be distinguished from implementation.   In development, we are insisting on thorough testing of the POINTS II application according to the agreed upon testing plan. We have asked our software engineering expert, Dr. Henry, to evaluate the testing done to date and to be done. We have shared his evaluation and recommendations regarding the testing done to date with our contractor and are awaiting its reply. In addition, we are contemplating a parallel production run as a final, extensive test of the application before implementation.

Implementation is the second component. We will implement POINTS II according to a detailed implementation plan **only** after we have been convinced by positive test results that the system is ready. In addition, final implementation will be coordinated with our business cycles to minimize disruption.

Concluding Observations: Continuing to work in the POINTS environment (with workarounds and fixes in major defects) is necessary . . . . Returning to the legacy systems is not practical, given the re-engineered business processes and the department's reorganization efforts. Since the system has been used to conduct business for the past several months, the possibility of re-converting data is not likely.

On an annual basis, the department is faced with an intricacy of deadlines to conduct its business . . . . [I]t is difficult for the department to operate in this systems development environment.

The department cannot provide a timeframe for obtaining stability in core modules. This information is necessary to move forward . . . . As part of its maintenance plan, the department recently hired a consultant to provide an estimate of when and how POINTS I will become stable.

A reassessment of system capabilities could determine which remain unfilled and those that may never be implemented. Although defects have been prioritized from mission critical to enhancements, analyzing the business process flow and separating system capabilities into "must do," "should do," and "could do" makes good sense . . . . [T]he current system is not stable enough to handle the increased complexity of new tax types and business rules.

Response: These concluding observations make a number of very significant conclusions with which we agree:

- Our assessment is also that the best solution to the present situation is to proceed to stabilize the application and not return to the legacy systems. In addition to the reasons set forth in the report, returning to the legacy systems is not advised because:
  - Technically - reconverting over 22 months of transaction data backward plus corrections and adjustments would be very expensive in both time and dollars – meanwhile, we would have to maintain and operate POINTS;
  - Interfaces with major systems such as MISTICS and SABHRS would require extensive rework;
  - Customer accounts and cases are not backwards compatible;
  - Return to the old COGS systems would not support the current law changes;
  - Peripherals, would also have to be modified backward, such as scanner, magnetic tapes, ACH debits and credits;
  - Staffing – programming staff qualified and trained in the legacy computer languages would be a serious challenge;
  - Costs, including costs to retrofit legacy – in the millions, and then ultimately a replacement scenario somewhere downstream – also in the millions.
- It is difficult to operate in this environment and we are open to constructive criticism while we actively seek every opportunity to improve our management and maintenance effort to work through these difficult issues. We must do so in the most efficient and cost-effective manner within our means.
- We cannot at this time provide an estimate of when we will be through the most critical defects. However, we have hired an individual with expertise in this area to critically review and recommend improvements to allow us to both improve our maintenance effort and quantify when and how we can obtain stability.
- We will consider all suggestions to improve our defect prioritization efforts. We do want to clarify that our present system does attempt to prioritize defect fixes in accordance with their importance to business functions with input from all parties, users, management, technical staff, and external sources.

Finally, I want to assure you that we fully understand the importance of getting through these difficult times and putting this disruption behind us. Montanans have a right to expect good service from their government and we are fervently striving to get there.