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Final Report of the Commission to Study the Promotion, Expansion and Regulation of the Harness Racing Industry

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Table of Contents

Page

Executive Summary ..... **i**

I. Introduction **1**

II. Background **2**

III. Recommendations **7**

IV. Recommended Legislation **12**

Appendices

A. Authorizing Resolve 2007, Chapter 128
B. Membership list, The Commission to Study the Promotion, Expansion and Regulation of the Harness Racing Industry
C. Comments on Recommendations presented as an addendum to the Report by Individual Members of the Study Commission
D. Summary of the Maine Harness Racing Commission's Medication and Testing Program.
E. Equine Testing Unit– Health and Environmental Testing Laboratory, Maine Health and Human Services
F. Slides from the October 23, 2007 presentation by Scot Waterman, D.V.M. – Executive Director, Racing Medication and Testing Consortium, Inc.

EXECUTIVE SUMMARY

The Commission to Study the Promotion, Expansion and Regulation of the Harness Racing Industry was charged with studying ways to expand racing opportunities for Maine horsemen and Maine-owned horses. The commission was specifically directed to review rules and regulations, including those related to equine drug testing, in order to ensure the integrity of the sport of harness horse racing and to explore ways to promote public interest and increased participation in the sport.

Throughout their discussions and in developing their recommendations, members focused on the theme that for harness racing to flourish in Maine, all involved must be assured of the continuing integrity of the sport. The infusion of slot machine revenue is revitalizing the industry by supplementing harness racing purses. As these purses increase, Maine tracks will become more competitive with other tracks in the Northeast and attract a larger pool of Standardbred horses. However, the industry must attend to factors beyond purse size to truly capitalize on the potential for growth. The recommendations in this report are made as an acknowledgement that Maine's tracks are poised to compete with others in the region and in recognition that the Maine Harness Racing Commission needs to have the vision and resources necessary to meet the challenges of a growing industry.

Recommendations Pertaining to the Detection of Restricted and Prohibited Substances and Enhanced Enforcement of Laws and Rules Pertaining to Restricted and Prohibited Substances

1. **Duty to submit a horse for out-of-competition drug testing.** A testing program that relies strictly on blood and urine samples taken on race day will not deter the use of Erythropoietin (EPO), darbepoetin (DAR) or other blood doping drugs. The study commission recommends amending the statutory provisions for licensing trainers of Standardbred horses to include a duty to submit a horse for testing as a condition of the license.

2. **Improve facilities for collecting blood and urine samples and implement practices to increase the rate of urine collection.** The study commission strongly recommends that the Maine Harness Racing Commission enforce the provisions in the Commission's Chapter 11 rule pertaining to the movement of horses from the track to the state testing area and holding for sample collection.

3. **Revise penalty sections in statute and rule.** The study commission recommends allowing the Maine Harness Racing Commission to impose fines in excess of $1,000.

4. **Provide adequate funds for an effective testing program for restricted and prohibited substances.** The study commission recommends that funds going to each of five accounts be deposited into a dedicated account to enhance laboratory testing. The total amounts received from the five funds would approximate the General Fund appropriation budgeted by the Maine Harness Racing Commission for drug testing except

that in no year will the percentage deposited into the laboratory testing fund from any one fund exceed 2% of the slot revenue flowing to that fund. [1]

5. **Adoption of the model rules developed by the Racing and Medication Testing Consortium.** The study commission recommends that the Maine Harness Racing Commission replace its Chapter 11 rule on medication and testing with a rule that closely aligns with the model rules developed by the Racing Medication and Testing Consortium (RMTC) and approved by the Association of Racing Commissioners International (ARCI).

6. **Reduce the Harness Racing Commission's reliance on the Attorney General's Office**. The study commission recommends that statutory changes be made to clarify the Executive Director's authority to present cases and that legal services be requested from the Attorney General on an as needed basis. A reduction in the Harness Racing Commission's budget for legal services would be reflected in increased resources to fund drug testing.

7. **Enhanced investigation and enforcement of laws and rules relating to the controlled medication program and the use of prohibited substances.** In addition to increased funding, the study commission recommends authorizing the State Police to assist in investigations upon receiving a request from the Maine Harness Racing Commission. The recommended authorization is limited to investigations following a positive test for use of a prohibited substance or use of a substance in violation of the applicable laws and rules.

Recommendations relating to racing officials

8. **Improve training for judges.** The study commission recommends that the Harness Racing Promotion Board fund an apprenticeship program to recruit and train new judges; and that the Maine Harness Racing Commission as the licensing authority for judges work with track management to promote compensation adequate to attract and retain judges. [2]

9. **Enforcement of restrictions on racing officials.** The study commission recommends that the Maine Harness Racing Commission communicate with management at the tracks to emphasize the restrictions on activities of racing officials found in Chapter 3, section 4 of the Commission's rules. Tracks need to be aware of these restrictions when employing or contracting with licensed racing officials. The Maine Harness Racing Commission must be vigilant in monitoring activities at the track and enforcing these restrictions.

Recommendations relating to facilities and operations of licensed tracks

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[1] All members support increased resources for drug testing, however, not all members support diverting funds to a dedicated account as proposed in this recommendation. See Appendix C for individual member comments.

[2] One member proposed additional training requirements. See Appendix C.

10. **Installation of cameras to record the "straight-on" view on the backstretch and homestretch.** The study commission strongly recommends that all tracks with live racing and pari-mutuel wagering install cameras on the backstretch and homestretch to provide judges with a better view at these points and improve the judge's ability to observe and act upon racing violations. The study commission recommends that installation and operation of these cameras be a license requirement for commercial tracks for the 2009 racing season and for associations sponsoring racing meets at fairs for the 2010 racing season. [3]

11. **Improve security at the tracks.** The study committee strongly urges the Harness Racing Commission to work with the tracks to increase security on the grounds of their facilities and especially in the paddock. State and track personnel need to work together to augment security and deter prohibited behavior.

Recommendations relating to the licensing of tracks and slot machine facilities

12. **Confidential status for certain application materials.** The study commission strongly recommends allowing the Maine Harness Racing Commission to keep confidential certain information submitted with an application for a commercial track license.

13. **New slot machine facilities restricted to grounds of race tracks.** The study commission strongly recommends that in the future all slot machine facilities must be located on the grounds of a commercial track; that is within 200 feet of the outside edge of the racing oval. This restriction is recommended to maintain the connection between slots and harness racing. The 2,000 foot distance allowed now would continue to apply to the Bangor facility.

Recommendation relating to budget preparation

14. **Preparation of budget by Maine Harness Racing Commission**. Finally, the study commission strongly reiterates the need for the Maine Harness Racing Commission and the Commissioner of Agriculture, Food and Rural Resources to adhere to the provisions in Title 8, section 267. The integrity of the sport and the vitality of the harness racing industry is compromised when inadequate funding is proposed by those charged with administering and enforcing the laws and regulations governing harness racing. It is essential that the legislative committees of jurisdiction have a realistic budget to review each biennium.

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[3] Some committee members suggest that the MHRC research the cost and practicality of installing backstretch and homestretch cameras prior to requiring them as a condition of licensing. See member comments in Appendix C.

I. INTRODUCTION

The Commission to Study the Promotion, Expansion and Regulation of the Harness Racing Industry was created pursuant to Resolves 2007, Chapter 128. A copy of the Resolve is provided in Appendix A. The study commission was charged with studying the best way to expand racing opportunities for Maine horsemen and Maine-owned horses, including the orderly expansion of race dates and venues and how to better fund the Maine Harness Racing Commission (MHRC) in a way that serves the industry and the public. The Resolve requires the study commission to review rules and regulations, including those related to equine drug testing, in order to ensure the integrity of the sport of harness horse racing. Finally, the study commission was directed to explore ways to promote public interest and increased participation in the sport by harness racing followers and horse owners.

The eleven-member study commission included: two members from the Senate, one of whom represented the Joint Standing Committee on Agriculture, Conservation and Forestry; four members of the House of Representatives, two of whom serve on the Joint Standing Committee on Agriculture, Conservation and Forestry; the chair of the Maine Harness Racing Promotional Board; two members of the Maine Harness Horsemen's Association; an agricultural fair racing director; and a representative of a commercial harness racing track. Study commission membership and affiliations are found in Appendix B.

The study commission held four meetings in October and November 2007. At the first meeting on October 9th, members reviewed their prescribed duties and identified the key issues to examine during the course of their work. They received a presentation from the Executive Director of the Maine Harness Racing Commission that described the current priorities of that Commission, its budgetary outlook, and areas in need of attention. Members also heard from staff, who outlined the statutory duties and responsibilities of the Maine Harness Racing Commission and the Maine Harness Racing Promotional Board.

At their second meeting held on October 23rd, the study commission welcomed a presentation from the Executive Director of the Racing Medication and Testing Consortium, Scot Waterman, D.V.M.. This presentation discussed the latest policies regarding controlled medication and banned substances in the horse racing industry and described the latest technology for testing for those substances in an effort to ensure the integrity of horse racing. Members also received information from the Director of Officials for the U.S. Trotting Association, T.C. Lane. He outlined the national association's standards with regard to the qualification of horse racing officials and the availability of training for those personnel.

On November 7th, the study commission held its third meeting covering a variety of topics. Part of this meeting was spent discussing a proposal to consolidate oversight of slot machine operations and harness racing. This proposal was before the Joint Standing Committee on Appropriations and Financial Affairs for consideration as one of many suggestions received as public input to streamline state government. The Commissioner of the Department of Public Safety and the Commissioner of the Department of Agriculture Food and Rural Resources

offered their thoughts on this proposal to the study commission. In response to a study commission request, the Deputy Attorney General explained the role of an Assistant Attorney General assigned to a state agency or commission, in this case, the Maine Harness Racing Commission. The study commission also reviewed current penalties and enforcement practices for harness racing statute and rule violations, compared the drug-testing procedures and violation provisions of the Racing Medication and Testing Consortium's model rules to those currently codified or in practice in Maine, and explored the potential to enhance testing using the Health and Environmental Testing Laboratory within the Maine Department of Health and Human Services.

The study commission held its final meeting on November 20, 2007. Members received a briefing from Jon Johnson, General Manager of Hollywood Slots and the commercial harness racing track at Bangor Historic Park, regarding completed and planned improvements to the track and its facilities. They also revisited previous discussions regarding consolidating oversight of slot operations and harness racing, the service provided to the Maine Harness Racing Commission by the Attorney General's office, and the costs of collecting equine blood and urine samples to test for prohibited medications and substances. Finally, the study commission reviewed the suggestions made during the course of the its work and discussed their inclusion as report recommendations.

II. BACKGROUND

Throughout their discussions and in developing their recommendations, members focused on the theme that for harness racing to flourish in Maine all involved must be assured of the continuing integrity of the sport. Owners need to know that their horses are not facing a competitor whose performance has been enhanced by the illegal use of drugs. Drivers and trainers need to know that judges are skilled in detecting racing violations and appropriately impose penalties. The wagering public and racing fans must be confident that all sectors of the industry are complying with Maine law and the regulations of the Maine Harness Racing Commission.

The infusion of slot machine revenue is revitalizing the industry by supplementing harness racing purses. As these purses increase, Maine tracks will become more competitive with other tracks in the Northeast and attract a larger pool of Standardbred horses. However, the industry must attend to factors beyond purse size to truly capitalize on the potential for growth. The perception of integrity in racing is largely dependent on the resources available and their judicious use by the state agency with oversight.

In the United States, each state is sovereign in regulating pari-mutuel racing. This is an exception among countries with pari-mutuel betting on horse racing. In other countries, the norm is for uniform regulation at the national level. Unless and until our federal government inserts itself in regulating pari-mutuel racing, the states that promulgate fair and transparent rules and responsibly enforce those rules are the states in which tracks and horsemen will benefit - attracting more horses and experiencing increases in the handle and public interest in the sport.

Today, more and more legal venues for gambling are available to the betting public who have an expectation that proper controls are in place to guard against cheating and unfair competition. Those controls, in the form of regulatory frameworks, not only promote the perception of fairness but also provide for appropriate enforcement. The harness racing industry in Maine must keep pace with other industries that derive their income from betting in order to remain a part of the historical fabric of this state.

Recognizing current budgetary constraints, the study commission decided to focus on areas of the industry's regulatory structure that could be changed with limited resources. Members gathered information on the latest techniques and policies regarding testing horses for prohibited substances, standards for harness racing officials, appropriate penalties and enforcement when laws and rules are violated, and the use of existing resources available to the Maine Harness Racing Commission.

Testing for controlled medications and banned substances

The use of performance enhancing drugs and other substances has infiltrated all levels of sport and competition from Major League Baseball to Olympic track & field events to the Tour de France. In harness racing, when such a breach of ethics and sportsmanship occurs, it results in a loss of purse money to owners and horsemen who race by the rules, distorted win records for horses, and an eventual decline in interest and wagers among the betting public if the playing field is perceived as uneven due to drug use. Beyond any monetary concerns, however, lies the very real and potentially deadly impact to a horse of administering substances and drugs for performance enhancement. Enforcement of medication and drug laws and rules is critical to the health of these animals. In several states and in Canada, regulatory agencies are educating themselves on the use of banned substances and employing the best technology available to guard against this abuse. To get a clear understanding of the issue, study commission members were briefed about Maine's current testing program and also spent a great deal of time with Scot Waterman, DVM – Executive Director of the Racing Medication and Testing Consortium.

Maine's equine testing program. The medication and testing program for harness racing horses is governed by rules promulgated by the Maine Harness Racing Commission. Blood and urine samples may be taken from horses before and after races on the grounds of the commercial track or fair association licensed to conduct harness racing. Horses may be selected for pre-race testing, which can be administered at any time after a horse has entered the paddock. Samples are taken from the winning horse in every race to look for the presence of any prohibited substances. Ideally, a urine sample is taken from the horse in a designated area. However, if the horse does not produce a sample for urine testing, a blood sample may be taken. Testing areas are supervised by representatives of the Department of Agriculture, Food and Rural Resource. Although pre-race testing is not routinely done at tracks in Maine, if a pre-race test indicates the presence of a banned substance, that horse is scratched from the race. The rules state that the horse's trainer is responsible for the condition of the horse if it is found to have tested positive for a prohibited substance.

Harness racing rules do provide for a therapeutic medication program for horses who need one of two particular types of medication. Phenalbutazone or "bute", a non-steroid anti-inflammatory drug, may be administered to a horse certified as "Phenylbutazone Eligible" by the state veterinarian. Furosemide or "lasix", which helps horses who are prone to exercise-induced bleeding in the lungs, may be administered to a horse determined "Furosemide Eligible" by a state veterinarian. Acceptable test levels and schedules for administering either bute or lasix are established in rule. Presence of these medications in a test is acceptable only if the horse is enrolled in a controlled medication program and permitted dosages are not exceeded.

Prohibited substances, according to MHRC Rules Chapter 11, are broken down into five classes based on pharmacology, drug use patterns, and the appropriateness of the drug for therapeutic use. The Maine Harness Racing Commission also has a specific test to determine the presence of Erythropoetin or "EPO" which is a drug that stimulates the production of red blood cells. This medication is intended for humans, often those with cancer to compensate for the loss of red blood cells due to the destruction of bone marrow through chemotherapy. This substance could be considered appropriate for a very ill horse but serves no therapeutic purpose for a racing horse that is presumed otherwise healthy. This drug can cause serious, permanent side effects in horses.

Test samples are analyzed by the Health and Environmental Testing Laboratory (HETL) within the Department of Health and Human Services. If initial screening tests on blood or urine samples indicate the presence of a drug or unknown substance, additional testing is conducted to confirm the findings. To confirm the presence of EPO, the Maine Harness Racing Commission sends samples to a lab in Pennsylvania that specializes in equine testing. See Appendix D for a summary of MHRC's medication and testing program and Appendix E for a description of HETL's resources and summary of equine testing in 2006 and 2007.

Model testing program. Scot Waterman, DVM Executive Director of the Racing Medication and Testing Consortium (RMTC) is working with states that conduct horse racing – thoroughbred, harness, or quarter horse racing- to promote the adoption of consistent rules to regulate the use of substances and establish testing protocols. With the advent of simulcasting, uniformity among the states has become increasingly important

To ensure integrity in the sport and drug control in horse racing, Dr. Waterman stressed three key areas:

1. Rules that are fair, transparent and enforceable;
2. Testing that looks for as wide a variety of substances as possible; and
3. Security that will deter violations and unethical behavior.

He cautions that weakness in any one of these areas makes a system easy to exploit. To assist in development of a good system, the RMTC has developed model rules for racing states. However, once adopted to be effective the states must ensure adequate numbers of trained investigators are available and that funding is provided for testing. A copy of Dr. Waterman's presentation is available in Appendix F.

Testing methods. Testing is the most complex and expensive element of drug control in racing. Utilizing advanced technology in testing for banned substances was another focus of Dr. Waterman's presentation to the study commission. Current testing procedures employed by the HETL use thin layer chromatography (TLC) and enzyme-linked immunobsorbant assays (ELISA). Dr. Waterman recommended that the most advanced testing in horse racing uses liquid chromatography-mass spectrometer machines that are much more refined in detecting substances. These machines are incredibly effective as they can be programmed to look for very specific substances. They are also incredibly expensive. The Department of Health and Human Services received a machine from The United States Department of Homeland Security. The University of Maine also has one of these advanced machines. The study commission has directed the Executive Director of the MHRC to explore the options for utilizing this technology in order to advance the controlled substances and medication testing program.

Samples for testing. Currently, in Maine, the gathering of urine or blood samples from horses happens immediately following a race. The study commission heard concerns regarding the process for collecting samples. Adequate security and oversight of sample collection is required in order to ensure that horses selected for post-race testing are taken directly from the track to the urine stall or area designated for sampling. The study commission discussed reports of horses designated for testing that were allowed to urinate prior to being led to the urine stall and were thus unable to provide a sample. Members agreed that adequate security, proper facilities and an obvious presence of a licensed official is necessary to guarantee the integrity of post-race testing. See recommendations 2 and 11.

With regard to testing for EPO, the study commission learned that for maximum benefit this substance is given to a horse several days prior to a race. By the time of the race, the anti-bodies, which indicate EPO was administered, are no longer detectable. In order to accurately test for this substance, which the study commission believes has no place in harness horse racing, horses must be made available for out-of-competition testing. Out-of-competition testing raised several issues with regard to the inspection and investigative authority of the MHRC, licensing of trainers, requiring submission for testing, and the hardships such compliance may cause. The study commission considered those issues carefully and includes a recommendation on how to implement out-of-competition testing in the Recommendations section of this report. See recommendation 1.

Penalties and enforcement

The MHRC Rules Chapter 17 establishes the penalties for violations within the industry. However, statute sets a $1,000 penalty limit for those violations. Considering the goal of maintaining the integrity of harness racing, members of the study commission discussed the need to restructure the penalty provisions in rule to allow for higher penalties and longer suspensions for the most egregious use of prohibited substances and other violations and graduated increases for subsequent offenses. Since the penalty structure is provided in rule, to increase the maximum amount of fines, the $1,000 cap on fines currently in statute must be raised. It was agreed among members of the study commission that the penalty structure must send a clear message regarding the value placed on integrity of the sport to be an effective deterrent for those who might threaten

that integrity. Study commission members looked closely at the model rules developed by the Racing Medication and Testing Consortium (RMTC). These rules provide for specific classification of prohibited substances and corresponding penalties and have been approved by the Association of Racing Commissioners International.

Upon reviewing penalty provisions, it appeared that length of suspensions currently outlined in MHRC rules could be subject to differing interpretations. For example, as written, the rules do not seem clear as to whether suspensions can carry over into subsequent racing years or whether "days" mean calendar days or race days. Rules governing suspension of those licensed by the MHRC must be clear and consistent to ensure that all licensees are treated equally and that suspensions and penalties are applied fairly and evenly. See recommendations 3 and 5.

Harness racing officials

Officials are an integral part of the sport of harness racing. Just as the racino has a top-rate monitoring system for slot machines, harness racing needs to have well-trained and highly professional judges. The ability to recruit and maintain harness racing judges is difficult because of the low level of pay, irregular work schedule, and the lack of available training to provide for an adequate pool of qualified judges. Discussion among study commission members cited the fact that most of the judges currently officiating harness racing are near or past typical retirement age and that the employment schedule and wage rate for judges is not enough incentive for people to consider judging a career option. Action by the MHRC, the tracks, and all interested parties is needed to ensure that the sport has an adequate supply of qualified judges.

In order to ensure a top-rate monitoring system for harness racing through the use of judges, study commission members agreed that skill development and continued education for judges should be a priority. Suggestions considered by the study commission included requiring continuing education at least every three years as a condition for license renewal. Supplementing the work of the judges using cameras and wireless technology at that tracks in order to provide a straight-on view of the backstretch and the homestretch of the track was an additional option that the study commission members deemed important to maintaining the integrity of the sport. See recommendations 8 and 10.

Maximizing existing resources

Three members of the study commission also serve on the Joint Standing Committee on Agriculture, Conservation and Forestry (ACF). As the legislative committee of oversight, the ACF committee receives an annual report from the MHRC including budgetary information. ACF members were successful in advocating for more funds for drug testing in the 2006-2007 budget only to see those funds reduced again in fiscal year 2007-08. All legislators on the study commission are acutely aware of the scarcity of resources to fund existing programs in state government.

While acknowledging this reality and the recognized need for more dollars for drug testing, the study commission looked for possible places within the MHRC's budget from which to divert funds. The Office of the Attorney General bills the MHRC for 60% of the annual costs of the Assistant Attorney General assigned to the MHRC. Costs include salary, benefits, and all other associated expenses. For fiscal year 2008 the billed amount is $67,125. The study commission believes that this figure can be substantially reduced by replacing the expectation that the Assistant Attorney General be present at all meetings of the MHRC with the practice of requesting legal services from the Attorney General's Office as needed. Authorizing the Executive Director of the MHRC to present cases will also diminish the hours of legal support needed. The amount by which the bill for AG's services is diminished is recommended to remain with the MHRC for use in the testing program. See recommendation 6.

With the exceptions noted in Appendix C, members of the study commission recommend that 5 funds contribute up to 2% percent of annual deposits into each fund from slot revenue to contribute to an effective drug testing program. See recommendation 4.

Increasing racing opportunities and interest in the sport

Currently, the MHRC has the authority to grant additional race dates to tracks if certain criteria are met. Study commission members were encouraged to hear that the MHRC has been able to award additional race dates in recent years due in part to the resurgence in the sport from the injection of racino revenue. These additional opportunities to race and making needed improvements to racing facilities will bring more interest into the sport. Study members were briefed on the recent and future improvements to the commercial track in Bangor and see that as positive step for the industry. However, some voiced their disappointment in the fact that the track in Bangor is not located at the same site as the slot machine facility, believing that if the two were in close proximity more people would be watching the races conducted at the track. Thus, members asserted that any future authority to operate a slot machine facility must be contingent upon that facility being located at the site of a commercial harness racing track. See recommendation 13.

III. RECOMMENDATIONS

The recommendations in this section of the report address in various ways the issue of maintaining the integrity of racing in Maine, from modernizing the existing regulatory structure to expanding racing opportunities. They should be read as an acknowledgement that Maine's tracks are poised to compete with others in the region and recognition that the Maine Harness Racing Commission needs to have the vision and resources to meet the challenges of a growing industry.

Recommendations Pertaining to the Detection of Restricted and Prohibited Substances and Enhanced Enforcement of Laws and Rules Pertaining to Restricted and Prohibited Substances

1. **Duty to submit a horse for out-of-competition drug testing.** A testing program that relies strictly on blood and urine samples taken on race day will not deter the use of Erythropoietin (EPO), darbepoetin (DAR), or other blood doping drugs. These drugs achieve the desired effect seven to fourteen days after administration to the horse but are only detectable in a blood sample drawn from one to four days after administration. EPO's potential to enhance performance makes it attractive to the unscrupulous and a threat to the integrity of the industry. This potential along with the detrimental effect on the health of a horse have caused regulators worldwide to work towards eliminating EPO's use in horse racing.

   The study commission recommends amending the statutory provisions for licensing trainers of Standardbred horses to include a duty to submit a horse for testing as a condition of the license. In essence, a person who signs an application for and is issued a trainer's license by the MHRC agrees to having blood samples drawn from horses trained by the licensee to detect the use of EPO and other prohibited substances that elude detection on race day. The study commission recommends that the Legislature direct the MHRC to adopt rules establishing a procedure for obtaining blood samples and ensuring a secure chain of custody for transporting the sample to a laboratory for testing. The MHRC may require a trainer of a horse registered with the United States Trotting Association and racing in Maine to upon request:

   a. Transport the horse to a designated testing site where a state veterinarian can draw a sample; or
   b. Allow a state veterinarian or a veterinarian designated by the MHRC and accompanied by a state steward access to the premises where the horse is kept for the purposes of obtaining a blood sample.

   The rules established by the MHRC must consider travel distances and costs associated with obtaining a sample when designating a testing site and may assess a fee to defray travel costs for the veterinarian and state steward.

2. **Improve facilities for collecting blood and urine samples and implement practices to increase the rate of urine collection.** The study commission strongly recommends that the MHRC enforce the provisions in the commission's Chapter 11 rule pertaining to the movement of horses from the track to the state testing area and holding for sample collection. The MHRC needs to work with commercial tracks and associations licensed to conduct racing to ensure that track facilities and personnel are adequate for conformance to the prescribed procedures.

3. **Revise penalty sections in statute and rule.** The study commission recommends allowing the MHRC to impose fines in excess of $1,000. An amendment to Title 8, section 279-B is needed to raise the statutory cap. The study commission also

recommends that the MHRC revise the penalty schedules found in Chapter 17 of the MHRC rules to allow higher fines for certain violations, most notably violations of the prohibited substance rule, and to provide graduated fines and suspensions for repeat offenses. The study commission recommends that the rules specify suspensions in terms of "race days" for suspensions of less than 90 days and suspensions longer than 90 days be specified in terms of months or years. See recommendation 5 below for further recommendations on penalties for use of prohibited substances.

4. **Provide adequate funds for an effective testing program for restricted and prohibited substances.** [4] The study commission recommends that a maximum of 2% of funds distributed from slot machine revenue to each of 5 funds be deposited into a dedicated account to enhance laboratory testing. The percentage to be allocated to the laboratory testing account each year must be calculated so that the total from the five funds approximates the amount of the General Fund appropriation budgeted by the MHRC for testing except that in no year will the percentage deposited into the laboratory testing account from any one fund exceed 2% of the slot revenue flowing to that fund.

   The only funds receiving slot machine revenue that would be impacted by this proposal are the fund to supplement purses, the Sires Stakes Fund, the Agricultural Fair Support Fund, the Fund to Encourage Racing at Maine's Commercial Tracks, and the Fund to Stabilize Off-Track Betting Facilities.

5. **Adoption of the model rules developed by the Racing and Medication Testing Consortium.** The study commission recommends that the MHRC replace its Chapter 11 rule on medication and testing with a rule that closely aligns with the model rules developed by the Racing Medication and Testing Consortium (RMTC) and approved by the Association of Racing Commissioners International (ARCI). The Uniform Classification of Foreign Substances in the model rule would be adopted as part of Maine's rule revision.

   The study commission recommends that the MHRC adopt penalties based on the model rule including graduated suspensions and fines for repeat violations that approximate the increased penalties for repeat violations in the model rule.

6. **Reduce the Maine Harness Racing Commission's reliance on the Attorney General's Office**. The study commission recommends that statutory changes be made to clarify the Executive Director's authority to present cases to the MHRC. This includes amending Title 4, section 807, subsection 3 to specify that a person who is not an attorney may represent the MHRC in certain actions. The MHRC would request legal services from

[4] All members support increased resources for drug testing, however, not all members support diverting funds to a dedicated account as proposed in this recommendation. See Appendix C for individual member comments.

the Attorney General as needed. The presence of an assistant attorney general is not needed at most meetings.

The MHRC and Commissioner Bradstreet need to reflect this change in the MHRC's budget with an amount equal to the reduction in the cost of an Assistant Attorney General allocated to help fund laboratory testing for restricted and prohibited substances.

7. **Enhanced investigation and enforcement of laws and rules relating to the controlled medication program and the use of prohibited substances.** In addition to increased funding for testing, the study commission recommends authorizing the State Police to assist in investigations upon receiving a request from the MHRC. The recommended authorization is limited to investigations following a positive test for use of a prohibited substance or use of a substance in violation of the applicable laws and rules.

Recommendations relating to racing officials

8. **Improve training for judges.** [5] The study commission recommends that the Harness Racing Promotion Board fund an apprenticeship program to recruit and train new judges. The Harness Racing Promotion Board is encouraged to work with the Maine Harness Racing Commission, the University of Maine, and U.S. Trotting Association to develop and offer this program.

   The study commission recommends that Maine Harness Racing Commission as the licensing authority for judges work with track management to promote compensation adequate to attract and retain judges. The study commission recommends that the MHRC work with interested parties to provide opportunities for skills development and continuing education for judges and that license renewal for judges be contingent upon participation in a continuing education offering at least once every three years.

   Of the many officials licensed by the MHRC and employed by the tracks, training is particularly important for presiding judges, associate judges, patrol judges, and starting judges. However, all racing officials need to be cognizant of what that individual's duties are and to be supervised to assure the duties are being performed.

9. **Enforcement of restrictions on racing officials.** The study commission recommends that the Maine Harness Racing Commission communicate with management at the tracks to emphasize the restrictions on racing officials found in Chapter 3, section 4 of the MHRC's rules. A racing official is prohibited from acting in an official capacity at a track on a day when a horse owned by that official is schedule to race at that track. A racing official is prohibited from participating in pari-mutuel wagering on any day when that official is acting in an official capacity. Tracks need to be aware of these restrictions when employing or contracting with licensed racing officials. The MHRC must be vigilant in monitoring activities at the track and enforcing these restrictions.

[5] One member proposed additional training requirements. See Appendix C.

Recommendations relating to facilities and operations of licensed tracks

10. **Installation of cameras to record the "straight-on" view on the backstretch and homestretch.** [6] The study commission strongly recommends that all tracks with live racing and pari-mutuel wagering install cameras on the back stretch and homestretch to provide judges with a better view at these points and improve the judge's ability to observe and act upon racing violations. The study commission recommends that the MHRC amend its rules for licensing tracks to require commercial tracks to have backstretch and homestretch cameras installed and operational for the 2009 racing season. The same requirement would be in effect for associations sponsoring racing meets at fairs for the 2010 racing season.

11. **Improve security at the tracks.** The study committee strongly urges the Maine Harness Racing Commission to work with the tracks to increase security on the grounds of their facilities and especially in the paddock. A visible security presence is a deterrent to prohibited behavior. For this reason, a uniformed security person in the paddock is recommended along with a security camera. It appears that the procedures in rule for identification and movement about the stables, paddock and track are adequate but not enforced. State and track personnel need to work together to augment security.

Recommendations relating to the licensing of tracks and slot machine facilities

12. **Confidential status for certain application materials.** The study commission strongly recommends allowing the Maine Harness Racing Commission to keep confidential certain information submitted with an application for a commercial track license. The study commission advises enacting a statutory provision similar to the Gambling Control Board's Freedom of Access exceptions for slot machine related licenses. The application although not a public record could be shared with the legislative committee of jurisdiction.

13. **New slot machine facilities restricted to grounds of race tracks.** The study commission strongly recommends that in the future all slot machine facilities must be located on the grounds of a commercial track; that is within 200 feet of the outside edge of the racing oval. This restriction is recommended to maintain the connection between slots and harness racing. The 2,000 foot distance allowed now would continue to apply to the Bangor facility only.

Recommendation relating to budget preparation

14. **Preparation of budget by Maine Harness Racing Commission**. Finally, the study commission strongly reiterates the need for the Maine Harness Racing Commission and the Commissioner of Agriculture, Food and Rural Resources to adhere to the provisions in Title 8, section 267. The integrity of the sport and the vitality of the harness racing

[6] Two committee members suggest that the MHRC research the cost and practicality of installing backstretch and homestretch cameras prior to requiring them as a condition of licensing. See member comments in Appendix C.

industry is compromised when inadequate funding is proposed by those charged with administering and enforcing the laws and regulations governing harness racing. It is essential that the legislative committees of jurisdiction have a realistic budget to review each biennium.

IV. Recommended Legislation

An Act to Implement the Recommendations of the Commission to Study the Promotion, Expansion and Regulation of the Harness Racing Industry

Be it enacted by the People of the State of Maine as follows:

Sec. 1. 4 MRSA §807, sub-§3 ¶¶ N and O are amended to read:

N. A person who is not an attorney, but is representing the State under section 807-A; ~~or~~

O. A person who is not an attorney, but who is representing a party in any hearing, action or proceeding before the Maine State Retirement System; or ~~.~~

Sec. 2. 4 MRSA §807, sub-§3, ¶P is enacted to read:

P. A person who is not an attorney , but who as the Executive Director of the Maine Harness Racing Commission is representing Department of Agriculture, Food and Rural Resources in accordance with Title 8, section 263-C.

Sec. 3. 8 MRSA §263-C, sub-§ 4, ¶B is amended to read:

B. Management of the work of the department regarding harness racing and off-track betting, including:

(1) Supervision of all staff involved in harness racing and off-track betting functions;

(2) Management of the collection and distribution of revenues under this chapter;

(3) Budget development and management;

(4) Policy development with regard to harness racing and off-track betting;

(5) Management of participant licensing;

(6) Enforcement of harness racing and off-track betting statutes and rules;

(7) Investigation of harness racing and off-track betting violations; ~~and~~

(8) Facilitating the development of positive working relationships in the harness racing industry and State Government and ~~.~~

(9) Presentation of evidence regarding alleged violations of this chapter or rules adopted in accordance with this chapter.

Sec. 4. 8 MRSA § 267-A is enacted to read:

§267-A. Account to support laboratory testing

The laboratory testing account is established as a dedicated account to support the detection of restricted and prohibited substances. The account does not lapse but continues from year to year. The commission shall annually estimate the funding needed for laboratory testing and include this estimate in the budget submitted under section 267. Funds are deposited into the laboratory testing account in accordance with this section.

1. Funds contributing to the laboratory testing account. The commission shall annually calculate an amount to be transferred from each of the following funds to the laboratory testing account..

A. the fund established in section 298 to supplement harness racing purses;

B. The Sire Stakes Fund established in section 281;

C. The Agricultural Fair Support Fund established I Title 7, section 77;

D. the Fund to Encourage Racing at Maine's Commercial Tracks established in section 299; and

E. The Fund to Stabilize Off-Track Betting Facilities established in section 300.

2. Maximum contribution. The amount contributed from each of the funds listed in subsection 1 paragraphs A through E must a percentage of the monies received by each fund under section 1036. The contribution must represent the same percentage from each fund and in no year may that percentage exceed 2 %.

In any year the total contributions deposited into the laboratory testing account from the funds listed under subsection 1 paragraphs A through E may not exceed the General Fund appropriation to the commission for the purpose of testing.

3. Administration. The executive director, in consultation with the Treasurer of State, shall develop a protocol for calculating contributions and transferring monies into the laboratory testing account.

Sec. 5. 8 MRSA § 270-A is enacted to read:

§270-A. Confidentiality of records and information.

This section applies to information or records included in an application or materials required by the commission for issuance of a commercial track license, including records obtained or developed by the commission related to an applicant or licensee. For the purposes of Title 1, section 402, subsection 3 the types of records and information listed in section 1006, subsection 1 of this title when collected by the commission are designated as confidential and may not be disclosed except as provided.

Sec. 6. 8 MRSA §279-A is amended in the first paragraph to read;

§279-A. Licenses, rules and regulations for participating in racing

For the purpose of enabling the commission to exercise and maintain a proper control over racing conducted under this chapter, the commission may adopt rules for the licensing, with or without fee in the discretion of the commission, of owners, trainers, drivers, grooms and all other persons participating in harness horse racing, including pari-mutuel employees and race officials. The commission may issue conditional licenses to owners, trainers, drivers, grooms and all other persons participating in harness racing, including pari-mutuel employees and race officials if one or more criteria are not met as contained in the commission rules. A person issued a license as a trainer has a duty to submit a horse for testing in accordance with section 279-E.

Sec. 7. 8 MRSA §279-E is enacted to read:

§279-E. Trainers; duty to submit a horse for testing for use of prohibited substances

Upon request of the commission, a person who signs an application for and receives a trainer's license in accordance with this chapter and rules adopted under section 279-A has a duty to submit a horse registered with the United States Trotting Association and trained by that licensee for the purpose of obtaining a blood sample to test for the use of prohibited substances.

1. Obtaining a sample. The commission may require a licensed trainer to:

15. Transport a horse to a designated site where a veterinarian employed by the commission or the department may draw a blood sample; or

16. Allow a veterinarian employed by the commission or the department or a veterinarian designated by the commission and accompanied by a state steward access to the premises where the horse is kept for the purpose of obtaining a blood sample.

2. Rulemaking. The commission shall adopt rules establishing a procedure for obtaining blood samples and ensuring a secure chain of custody for transporting the sample to a laboratory for testing. The rules must consider travel distances and costs associated with obtaining a sample when designating a testing site and may assess a fee to defray travel costs for the veterinarian and state steward.

3. Refusal. Refusal to comply with the commission's directives for obtaining a sample under this section is a basis for suspension of a trainer's license.

Sec. 8. 8 MRSA §279-B is amended in the first paragraph to read:

§279-B. Fines, suspensions and revocations

To enforce the provisions of this chapter and the rules referred to in section 279-A, the commission is authorized to establish a schedule for fines ~~not to exceed $1,000~~ for each violation of this chapter or the rules. The commission is authorized to levy a fine, after notice and hearing, for each violation of this chapter or the rules.

Sec. 9. 8 MRSA § 280, sub-§5 is enacted to read:

5. Investigation by state police. The state police may assist in investigating alleged violations of subsection 1 when:

A. The commission requests assistance; and
B. A sample submitted for testing under rules adopt pursuant to section 279-A or 279-E yields a positive test result.

Sec. 10. 8 MRSA § 1001, sub-§36 is repealed and replaced to read:

36. Premises of a commercial track. "Premises of a commercial track" means:

A. the property located within 200 feet of the outside edge of the racing oval of a commercial track and owned by the person who owns the property on which the track is located: or

B. If the commercial track was owned by a municipality when a license to operate slot machines in association with that commercial track was issued, the property located

within 2,000 feet of the center of the racing oval of the commercial track and owned by the person who owns the property on which the track is located.

SUMMARY

This bill does the following:

1. It specifies that the duties of the Executive Director of the Maine Harness racing Commission include presenting evidence on alleged violations.

2. It establishes a dedicated account for laboratory testing to detect restricted and prohibited substances administered to horses.

3. It designates certain information and records included in application materials for a commercial track license as confidential.

4. It requires a trainer to submit a horse for testing to detect prohibited substances as a condition of receiving a trainer's license.

5. It removes the $1,000 cap on fines for violations of the harness racing statutes and rules.

6. It authorizes the State Police upon the request of the Harness Racing Commission to assist in investigations following a positive test for use of substances in violation of the harness racing rules.

7. It replaces the definition of "premises" with a definition for "premises of a commercial track." The definition restricts licenses to operate slot machines to property within 200 feet of a commercial track except that the 2000 foot maximum distance continues for a commercial track that received an initial license for slot machines while owned by a municipality.

APPENDIX A

Authorizing Legislation
Resolve 2007, Chapter 128

STATE OF MAINE

IN THE YEAR OF OUR LORD

TWO THOUSAND AND SEVEN

APPROVED

JUN 27 '07

BY GOVERNOR

CHAPTER

128

RESOLVES

H.P. 791 - L.D. 1073

Resolve, To Study the Promotion, Expansion and Regulation of the Harness Racing Industry

Emergency preamble. Whereas, acts and resolves of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the Commission To Study the Promotion, Expansion and Regulation of the Harness Racing Industry is established to review the racing industry in Maine; and

Whereas, the study must be initiated before the 90-day period expires in order that the study may be completed and a report submitted in time for submission to the next legislative session; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore, be it

Sec. 1. Commission established. Resolved: That the Commission To Study the Promotion, Expansion and Regulation of the Harness Racing Industry, referred to in this resolve as "the commission," is established; and be it further

Sec. 2. Commission membership. Resolved: That the commission consists of 11 members appointed as follows:

1. Two members of the Senate, one member of the party holding the highest number of seats and one member of the party holding the 2nd highest number of seats, appointed by the President of the Senate. At least one Senate member must be serving on the Joint Standing Committee on Agriculture, Conservation and Forestry;

2. Four members of the House of Representatives, at least one member of the party holding the highest number of seats and at least one member of the party holding the 2nd highest number of seats, all appointed by the Speaker of the House. At least one House member must be serving on the Joint Standing Committee on Agriculture, Conservation and Forestry;

3. The chair of the Maine harness racing promotion board;

4. Two members recommended by an association of horsemen appointed by the Commissioner of Agriculture, Food and Rural Resources;

5. One member who is a racing director for an agricultural fair recommended by a statewide fair association and appointed by the Commissioner of Agriculture, Food and Rural Resources; and

6. One member representing commercial harness racing tracks appointed by the Commissioner of Agriculture, Food and Rural Resources; and be it further

Sec. 3. Chairs. Resolved: That the Senate member named by the President is the Senate chair of the commission and the House of Representatives member named by the Speaker is the House chair of the commission; and be it further

Sec. 4. Appointments; convening of commission. Resolved: That all appointments must be made no later than 30 days following the effective date of this resolve. The appointing authorities shall notify the Executive Director of the Legislative Council once all appointments have been completed. Within 15 days after appointment of all members, the chairs shall call and convene the first meeting of the commission, which must be no later than 60 days following the effective date of this resolve; and be it further

Sec. 5. Duties. Resolved: That the commission shall study the best way to expand racing opportunities for Maine horsemen and Maine-owned horses, including an orderly expansion of race dates and venues and how to better fund the State Harness Racing Commission in a way that serves the racing industry and the public. The commission shall review rules and regulations and issues such as drug testing to ensure the integrity of the sport. In addition, the commission shall explore ways to promote public interest and participation in harness racing for followers of the sport and horse owners; and be it further

Sec. 6. Staff assistance. Resolved: That the Legislative Council shall provide necessary staffing services to the commission; and be it further

Sec. 7. Compensation. Resolved: That the legislative members of the commission are entitled to receive the legislative per diem, as defined in the Maine Revised Statutes, Title 3, section 2, and reimbursement for travel and other necessary expenses related to their attendance at authorized meetings of the commission. Public members not otherwise compensated by their employers or other entities that they represent are entitled to receive reimbursement of necessary expenses and, upon a demonstration of financial hardship, a per diem equal to the legislative per diem for their attendance at authorized meetings of the commission; and be it further

Sec. 8. Report. Resolved: That, no later than December 5, 2007, the commission shall submit a report that includes its findings and recommendations, including any suggested legislation, for presentation to the Joint Standing Committee on Agriculture, Conservation and Forestry. The Joint Standing Committee on Agriculture, Conservation

and Forestry is authorized to introduce legislation related to the harness racing industry to the Second Regular Session of the 123rd Legislature; and be it further

Sec. 9. Commission budget. Resolved: That the commission shall seek outside funds to fully fund all costs of the commission. If sufficient outside funding has not been received by the commission by September 15, 2007 to fully fund all costs of the commission, no meetings are authorized and no expenses of any kind may be incurred or reimbursed. Contributions to support the work of the commission may not be accepted from any party having a pecuniary or other vested interest in the outcome of the matters being studied. Any person, other than a state agency, desiring to make a financial or in-kind contribution must certify to the Legislative Council that it has no pecuniary or other vested interest in the outcome of the study. The certification must be made in the manner prescribed by the Legislative Council. All contributions are subject to approval by the Legislative Council. All funds accepted must be forwarded to the Executive Director of the Legislative Council along with an accounting record that includes the amount of the funds, the date the funds were received, from whom the funds were received and the purpose of and any limitation on the use of the funds. The Executive Director of the Legislative Council shall administer any funds received by the commission. The executive director shall notify the chairs of the commission when sufficient funding has been received. Within 10 days after its first meeting, the commission shall present a work plan and proposed budget to the Legislative Council for its approval. The commission may not incur expenses that would result in the commission's exceeding its approved budget; and be it further

Sec. 10. Appropriations and allocations. Resolved: That the following appropriations and allocations are made.

LEGISLATURE

Study Commissions - Funding 0444

Initiative: Provides an allocation of Other Special Revenue Funds in fiscal year 2007-08 in the event outside funds are received to fully fund the cost of the Commission To Study the Promotion, Expansion and Regulation of the Harness Racing Industry.

OTHER SPECIAL REVENUE FUNDS	**2007-08**	**2008-09**
Personal Services	$1,760	$0
All Other	$3,000	$0
OTHER SPECIAL REVENUE FUNDS TOTAL	$4,760	$0

Emergency clause. In view of the emergency cited in the preamble, this legislation takes effect when approved.

APPENDIX B

Membership list, Commission to Study the Promotion, Expansion and the Regulation of the Harness Racing Industry

Commission to Study the Promotion, Expansion and the Regulation of the Harness Racing Industry

Resolve 2007, Chapter 128

Wednesday, September 26, 2007

Appointment(s) by the President

Sen. John M. Nutting , Chair
RR 1 Box 3410
Leeds, ME 04263

Senate Member

Sen. Debra D. Plowman
180 Patterson Road
P.O. Box 468
Hampden, ME 04444

Senate Member

Appointment(s) by the Speaker

Rep. John H. McDonough
6 Old Blue Point Road
Scarborough, ME 04074

House Member

Rep. Benjamin Marriner Pratt
95 Hatcase Pond Road
Eddington, ME 04428

House Member of ACF Committee

Rep. Troy D. Jackson , Chair
P.O. Box 221
Fort Kent, ME 04743

House Members (at least one from each major political party)

Rep. Donald G. Marean
P.O. Box 135
Standish, ME 04085

House Member

Commissioner, Department of Agriculture

Scott MacKenzie
88 Etna Road
Plymouth, ME 04969

Representing the Association of Horsemen

Fred Nichols
P.O. Box 614
Bangor, ME 04402

Representing Commercial Harness Racing Tracks

Timothy C. Powers
P.O. Box 339
Pittsfield, ME 04967

Representing the Association of Horsemen

Ken Ronco
427 Webster Street
Lewiston, ME 04240

Representing Racing Directors of Agricultural Fairs

Other

Mr. Robert J. Tardy
P.O. Box 437
Newport, ME 04953

Chair, Maine Harness Racing Promotion Board

Staff:

Jill Ippoliti 287-1670
Office of Policy & Legal Analysis

Danielle Fox 287-1670
Office of Policy & Legal Analysis

APPENDIX C

Comments on Recommendations presented as an Addendum to the Report by Individual Members of the Study Commission

Appendix C

Members' Comments on Certain Recommendations

Note: *The comments presented in this appendix were received by staff after the last meeting of the study commission.*

Comments on Recommendation 4: Provide adequate funds for an effective testing program for restricted and prohibited substances.

Senator Plowman, Fred Nichols and Robert Tardy although endorsing the basic recommendation to "provide adequate funds for an effective testing program for restricted and prohibited substances" do not embrace the study commission's proposal to divert funds from slot revenues to certain dedicated accounts to an account to support laboratory testing.

Senator Plowman cautions against any action to transfer revenue generated from slot machines to any purpose or account other than as provided in Title 8, section 1036. She suggests that there is a willingness among the recipients of those funds, for the good of the industry, to support enhanced drug testing via private contract with the Maine Harness Racing Commission. Thus, voluntary contributions from the 5 funds for enhanced testing would be preferable to mandating a transfer of funds.

Senator Plowman suggests increasing security at the tracks as proposed in Recommendation 11 is a first step to deterring violations and enhancing enforcement of racing laws and rules.

Robert Tardy offers the following comments: The testing program should reflect the discussions of the Study Commission. This is not the time to be arbitrarily looking for additional revenues from within or outside of the industry. Rather than recommend any particular funding source or amount, the Harness Racing Commission should comply with Title 8 section 267 and follow normal budgetary procedures and articulate exactly what is required for a testing program. Then, if more money is needed, bring the proposal back to the industry and the Legislature. **Should an enhanced testing program require additional funding, we should, at that time, give consideration to funding with a percentage of those slot revenue funds. The danger of offering these funds up front is that the Department has the ability to sweep these monies anytime there is a shortfall. Somehow we have to find a system that funds harness racing and keep us as far away from the appropriations process as possible**.

Any drug testing program needs to be fully developed and vetted within the industry.

A. Formal proposals for testing should be requested from the Department of Health and Human Services, the University of Maine, and other private and public labs.
B. The procedural recommendations of the Study commission should be implemented before funding considerations are undertaken. That is--- increased security and secure testing procedures should be in place and followed to the letter. State steward should be responsible for making sure that every individual involved in regulating live racing does their job effectively.

C. The Harness Racing Commission should have adopted an increased penalty structure so that those who violate the public trust are no longer part of the industry before we spend more money on testing. Again this should be in place before we spend more money.

D. The harness Racing Commission Staff should establish a formal testing protocol i.e. blood samples vs. urine samples, exotic drugs vs. therapeutic, screening an entire race day's samples vs. individual testing, etc.

Comments on Recommendation 8: Improve training for judges

Robert Tardy offers the following: "This item should include a recommendation that the MHRC staff develop an in-house skill development and training program and require participation as a condition of licensing. In addition there is a lot of sentiment in the industry for some type of ongoing evaluation program for judges. These evaluations should be considered by the MHRC before any licenses are renewed. This was mentioned in the full report, but should be a major part of the program.

Comments on Recommendation 10: Installation of cameras to record the "straight-on" view on the backstretch and front stretch.

Robert Tardy offers the following comments: This recommendation should be for the Harness Racing Commission to research the costs and practicality of "front stretch and back stretch cameras" and their potential to replace backstretch judges before starting any rule making procedures for requiring them as a condition of licensing. In any case the timetable for installation should be the same for all venues.

APPENDIX D

Summary of the Maine Harness Racing Commission's Medication and Testing Program

STATE HARNESS RACING COMMISSION
CHAPTER 11 RULES: MEDICATION AND TESTING
Summary

1. A test sample is taken from the winning horse in every race to determine the presence of any prohibited substance.

2. The Presiding Judge or State Steward may order any horse that has raced or has been "declared in" to a race to have a test sample taken to determine the presence of any prohibited substance.

3. Pre-race testing may be conducted anytime after the horse enters the paddock.

4. The state testing area is supervised by representatives of the Department of Agriculture, Food, and Rural Resources

5. A horse is scratched from a race if a pre-race test indicates the presence of a prohibited substance.

6. The horse's trainer is responsible for the condition of the horse.

7. Penalties for use of drugs
   - Suspension of license for a period of time determined by the commission
   - Class C crime – imprisonment not to exceed 5 years; fine not to exceed $5,000 (in statute – 8 MRSA §280, sub-§3)
   - A horse that has had a positive sample is prohibited from competing in a race for a period not to exceed 30 days.

8. State has the right to enter stables and other places within the grounds of an association licensed to conduct races to examine property and seize devices that could be used to inject a prohibited substance.

Controlled Medication Program (CMP)
1.Phenylbutazone – Horse must be certified "Phenylbutazone Eligible" by the department veterinarian. The trainer must declare this eligibility each time the horse is entered to race.

- Permitted test levels for Phenylbutazone (bute) - A horse in the bute program may not race with a test level of less than 0.3 micrograms or more than 5 micrograms of bute per milliliter of blood.

- Administration of bute – Bute may not be given within 24 hours of the published post time. A vet may administer eithr orally or by injection. A trainer may only administer bute orally under the direction and upon prescription by a vet.

- 30 day minimum time periods for changing status as to bute eligible

- Racing program must identify horses racing under the bute program.

2. Furosemide a.k.a. lasix – Horse must be certified as "Furosemide Eligible" by the department veterinarian.

- All horses racing as "Fueosemide Eligible" must report to an area within the paddock not less than 3 hours prior to post time and remain in the paddock area prior until post time except for the pre-race warm up .

- Furosemide administered only by injection by a department vet between 21/2 and 4 hours prior to published post time. . Minimum dosage of 100 milligrams (2cc) ; maximum dosage of 250 milligrams (5 cc.)

- Racing program must identify horses racing under the furosemide program.

Alkalizing Agents Testing is conducted post-race. Positive test results are reported immediately by the commission's chemist to the Department.

- Maximum acceptable test levels of Total Carbon Dioxide (TCO2) are 37.0 mmol/l for horses not racing on furosemide.

- Maximum acceptable test levels of Total Carbon Dioxide (TCO2) are 39.0 mmol/l for horses racing on furosemide.

- When test levels of Total Carbon Dioxide (TCO2) exceed the acceptable level, it is deemed that the horse has been administered an alkalinizing agent and constitutes a violation of the rules.

- The owner or trainer may request that a horse testing above the maximum level of TCO@ be monitored and tested for naturally high levels of TCO2. The person requesting the detention and testing is responsible for all associated expenses.

Prohibited substances The commission's rules classify prohibited substances into 5 classes based on pharmacology, drug use patterns and the appropriateness of the drug for therapeutic use. The rules do not specify the tests or testing protocol used to detect prohibited substances.

Maine Harness Racing Medication/Drug Testing Program
2001-2007

	URINE AND BLOOD PROGRAM					BLOOD GAS PROGRAM		EPO PROGRAM		CONTROLLED MEDICATION PROGRAM		PROGRAM TOTALS			
Year	Equine Urine Samples	Equine Blood Samples	Equine Urine and Blood Drug Test Violations	Human Urine Samples	Human Urine Drug Test Violations	Equine Blood Gas Tests (TCO_2)	Equine Blood Gas Test Violations	Equine EPO Blood Samples	Equine EPO Test Violations	Participating Horses	Horses Withdrawn	Total Samples	Total Violations	Total Dashes	Cost of Testing Program
2001	2,315	655	3	154	1	2701	1	n/a	n/a	1247	69	5,825	5		
2002	2,092	622	15	154	3	2222	4	n/a	n/a	1203	59	5,090	22		
2003	2,080	795	18	121	0	2443	2	n/a	n/a	1319	107	5,439	20	1,832	$100,753.66
2004	2,237	149	5	104	2	3883	4	n/a	n/a	1347	96	6,373	11	1,935	$162,437.80
2005	2,297	95	8	151	2	3834	6	n/a	n/a	1145	80	6,377	16	1,833	$165,600.62
2006	2,445	358	14	181	4	4517	4	4016	0	1151	94	11,517	22	2,292	$305,185.30
2007*	2,617	208	7	54	0	1877	4	408	0	1660	89	5,218	11	2,235	$ 256,193.00

*The figures for 2007 are gathered from raw data in MHRC's system and have not been confirmed.

Prepared by Office of Policy Legal Analysis
Data Source: Maine State Harness Racing Commision Annual Reports 2001-2006

1/4/2008

APPENDIX E

Health and Environmental Testing Laboratory within the Department of Health and Human Services

Maine Health and Human Services

John Elias Baldacci, Governor
Brenda M. Harvey, Commissioner
Dora Ann Mills, MD MPH, Director Me CDC

Maine Center for Disease Control and Prevention
Division of Public Health Systems
Health and Environmental Testing Laboratory, HETL
12 State House Station
Augusta, Maine 04333-0012

MEMORANDUM

TO: Commission to Study the Promotion, Expansion, and Regulation of the Harness Racing Industry
Sen. John M. Nutting, Chair, Sen. Debra D. Plowman, Rep. John H. McDonough, Rep. Benjamin Marriner Pratt, Rep. Troy D. Jackson, Chair, Rep. Donald G. Marean, Mr. Scott MacKenzie, Mr. Fred Nichols, Mr. Timothy C. Powers, Mr. Ken Ronco, Mr. Robert J. Tardy

FROM: John A. Krueger, Chief, Laboratory Operations, HETL
E-Mail (john.a.krueger@maine.gov) www.maine.gov/dhhs/etl
Christopher P. Montagna, Forensic Supervisor, Maine HETL

SUBJECT: Summary of Me CDC Health and Environmental Testing Laboratory Support to the Harness

CC: Don Ward, Director, Division of Public Health Systems

DATE: 10/23/2007

The mission of the Health & Environmental Testing Laboratory (HETL) Equine Testing Unit is to provide quality, timely and comprehensive analysis of urine and blood samples from equine harness and draft animals. We strive to project professionalism, teamwork, courtesy and competence to our customers and the citizens of the State of Maine. The Equine Testing Unit is under the direction of the Forensic Chemistry Section. In 2004 the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) accredited the Forensic Chemistry Section in the area of Controlled Substances and Toxicology (human blood alcohol and urine drugs). This unit provides all forensic drug and toxicology testing for the Department of Public Safety and other local and county law enforcement agencies. Likewise, the Association of Official Racing Chemists (AORC) recognizes the proficiency of the senior equine testing chemist at the HETL.

The Equine Testing Unit, while a component of the Forensic Section, is teamed with other HETL professionals within the entire lab. This team provides a comprehensive administration that includes a new computer system, other instrumentation and trained technical staff in multiple disciplines.

STAFF AND ANALYSIS OF EQUINE SAMPLES

The Equine Testing Unit is staffed by two full-time chemists and one seasonal/part time Chemist Assistant. The team members conduct a series of analytical tests on all blood and urine samples submitted under proper Chain-Of-Custody to the HETL. Each sample is subjected to an initial screening method by either Enzyme Linked Immuno-Assay (Elisa) or High Performance Liquid Chromatography (HPLC). Each sample that screens positive is then extracted following well established and industry approved methods. After extraction the sample is analyzed by Gas Chromatography/Mass Spectrometry (GC/MS). The presence of suspicious drugs is confirmed by GC/MS.

The HETL has the analytical capability (through commercially available Elisa Kits and the laboratory's HPLC library) to screen and confirm approximately 480 different drugs.

EXISTING HETL INSTRUMENT AND CAPABILITIES/TRAINING

The HETL currently maintains the following instrumentation for the analysis of equine samples:

- One GC/MS – installed in August 1996 and updated (replaced the MSD (Mass Selective Detector) and computer software) in 2006
- One HPLC - installed 2000 and updates (software and computer) in March 2007
- One DSX (Automated ELISA pipetter, washer, and reader) installed in July 2007
- The Equine Testing Unit is working with the Organic Chemistry section, which maintains an HPLC/MS/MS (installed 2007, but Instrument not yet in service) to incorporate MHRC samples into the sample mix.
- Additional Training
- Two racing chemists (Mrs. Dawn Bickford and Mr. Edward Collins) attended a Proteomics Workshop covering HPLC/MS/MS detection and confirmation of protein-based drugs such as EPO and DPO sponsored by Mr. Scot A. Waterman DVM through the Racing Medication and Testing Consortium (RMTC) in January 2006.
- Both chemists are planning to attend a proposed wet HPLC/MSMS workshop to be held at the RMTC laboratory in the first quarter of 2008.

HETL DATA PROVIDED TO THE COMMITTEE

The HETL is providing the following information regarding its testing program:

Attachment #1 – Maine Harness Racing Data for the 2006 Racing Season

Attachment #2 – Maine Harness Racing Data for the 2007 Racing Season

Attachment #3 – AORC (National) statistics for positive race samples - 2005

Attachment #4 – AORC (National) statistics for positive race samples - 2006

These documents demonstrate the type of testing and number of positives samples identified by the HETL as well as our confirmed positive rate compared to other national testing laboratories.

FUTURE STATE FOR IMPROVED ANALYSIS OF MHRC SAMPLES

The objective of the equine testing program is to ensure quality, as well as the reliability of laboratory results produced for our customers. In order to develop and put into service methods capable of meeting the MHRC's needs for precision, accuracy, sensitivity, and specificity the HETL recommends the following:

- New GC/MS to replace the existing antiqued system. The HETL recommend a system with an inert source. The result will be increased sensitivity in testing and the ability to confirm the presence of a drug at lower concentrations. Cost of a new GC/MS is approximately $110,000. Financing alternatives exist, though there is a significant additional cost associated with this financing.

- Allow annual training for staff related to equine testing and procedures. The result will be increased awareness of techniques and improved testing methods. For training to occur, the HETL needs out of state travel authorization.

- Increase the number of samples screened, the number of ELISA tests performed, and also add acid, base and neutral extractions during the screening process. While the ELISA tests are more sensitive, the additional extractions increase the number of drugs that might be potentially identified. The results these three changes will be detection of additional drugs. The cost for each additional Elisa tests is approximately $1/test. The cost of the additional extraction is about $1.25/sample.

Implementation of these recommendations will to ensure the continued success of the State's monitoring and analysis of equine samples.

Please feel free to contact me at 287-6611 should you have any questions or require any additional information regarding this matter.

Respectfully Submitted,

John A. Krueger
Chief of Laboratory Operations, MeCDC, DPHS, HETL

Attachment #1

HARNESS RACING SAMPLES: 1/12/2006 - 12/31/2006						
	Equine Race Testing					Human
1	2	3	4	5	6	7
Location	Drug Analysis	EPO/DPO	Controlled Medication	TCO2	Draft Analysis	Driver
Out of State	4	n/a	n/a	n/a	193	n/a
Scarborough	1458	2282	217	2445	N/A	28
Bangor	457	903	92	1009	N/A	9
Fairs	567	851	9	1083	44	9
Maine Totals	2486	4036	318	4537	237	46
2006 Drug Violations						
		Number	Drug			
Blood & Urine Drug Screen		1	Levamisole			
		1	Caffeine			
		1	Flunixin			
		1	Guaiphenesin/Methacarbamol			
TCO2		4	in violation of Commission rules			
Permitted Medication		10	in violation of Commission rules			
Driver Urine		4	Screened positive for controlled drugs			
TOTAL POSITIVE / VIOLATIONS		**22**				

Definitions of Column Headings for Harness Racing Samples	
1 Location	Source of samples
2 Drug Analysis	Samples are screened by 24 panel ELISA, Ion Pair Extractions on the HPLC then confirmation on GC/MS
3 EPO/DPO	Blood samples are screened by ELISA for EPO (Erythropoietin) and DPO (Darbepoietin).
	Suspicious samples are sent out for confirmation.
4 Controlled Medication	ELISA is used to detect the presence of Furosemide and HPLC Quantitation for the amount of Phenylbutazone
5 TCO2	Beckman-Coulter EL-ISE is used for Quantitation of total CO2 in equine blood
6 Draft Analysis	ELISA toxicology drug screen and confirmation by GC/MS in both urine and blood for pulling animals
7 Driver Urine Analysis	AXSYM toxicology drug screen and confirmation by GC/MS in human urine

Attachment #2

HARNESS RACING SAMPLES: 3/27/2007 - 10/18/2007						
	Equine Race Testing					Human
1	2	3	4	5	6	7
Location	Drug Analysis	EPO	Controlled Medication	TCO2	Draft Analysis	Driver
Out of State	n/a	n/a	n/a	n/a	168	n/a
Scarborough	1138	143	87	693	n/a	19
Bangor	424	49	31	398	n/a	2
Fairs	609	152	26	530	45	21
Maine Totals	2171	344	144	1621	45	42
2007 Drug Violations						
TEST		Number	Drug			
Blood & Urine Drug analysis		1	Caffeine			
		2	Flunixin			
		2	Guaiphenesin			
TCO2		5	in violation of Commission rules			
Permitted Medication		13	in violation of Commission rules			
Driver Urine		15	screened positive for controlled drugs			
TOTAL POSITIVE / VIOLATIONS		**38**				
Definitions of Column Headings for Harness Racing Samples						
1 Location	Source of samples					
2 Drug Analysis	Samples are screened by 24 panel ELISA, Ion Pair Extractions on the HPLC then confirmation on GC/MS					
3 EPO/DPO	Blood samples are screened by ELISA for EPO (Erythropoietin) and DPO (Darbepoietin).					
	Suspicious samples are sent out for confirmation.					
4 Controlled Medication	ELISA is used to detect the presence of Furosemide and HPLC Quantitation for the amount of Phenylbutazone					
5 TCO2	Beckman-Coulter EL-ISE is used for Quantitation of total CO2 in equine blood					
6 Draft Analysis	ELISA toxicology drug screen and confirmation by GC/MS in both urine and blood for pulling animals					
7 Driver Analysis	AXSYM toxicology drug screen and confirmation by GC/MS in human urine					

Attachment #3

ASSOCIATION OF OFFICIAL RACING CHEMISTS
ANNUAL SUMMARY REPORT
SAMPLES TESTED, 2005
AORC MEMBERS

NOTE: Data in this report has been supplied by individual members of the Association of Official Racing Chemists and is compiled by the AORC office. Use of this information is permitted only when the source is acknowledged.

UNITED STATES HORSE RACE SAMPLES

	Jockey			Harness					
Origin	**Saliva**	**Urine**	**Blood**	**Saliva**	**Urine**	**Blood**	**Total**	**Positive**	**Notes**
Arkansas					709	711	1420	7	1
California		3637	3870		1298	1377	10182	80	2
Florida		7548	7526		1886	2169	19129	62	3
Idaho		296	49				345	15	4
Indiana		2074	2352		2128	2577	9131	44	5
Iowa							3877	32	6
Kansas		851	917				1768	18	7
Kentucky							15558	71	8
Louisiana		5818	6344				12162	23	
Massachusetts		1962	215		1580	603	4360	7	
Minnesota		1375	1487				2862	26	9
Nevada		100	100				200	22	10
New Hampshire					930	1293	2223	9	
New Jersey		2047	4180		6070	17722	30019	52	11
New Mexico		3416	854				4270	52	
Oklahoma		3430	7004				10434	71	12
Ohio		3093	3344		5103	8817	20357	42	13
Oregon		1060	1066				2126	26	14
South Dakota		169	11				180	2	
Washington		1551	1546				3097	33	15
Wyoming		215	216				431	18	16
Totals:		**38642**	**41081**				**134696**	**712**	

MEDIAN VALUE= 26

Notes	Comments
1	18 violations of permissive medication.
2	68 violations of permissive medication.
3	36 violations of permissive medication.
4	9 violations of permissive medication.
5	9 violations of permissive medication.
6	Note: Jockey and harness numbers not differentiated.
7	11 violations of permissive medication.
8	Note: Jockey and harness numbers not differentiated.
9	21 violations of permissive medication.
10	11 violations of permissive medication.
11	11 violations of permissive medication.
12	40 violations of permissive medication.
13	80 violations of permissive medication.
14	16 violations of permissive medication.
15	27 violations of permissive medication.
16	11 violations of permissive medication.

2006 AORC Statistics

Prepared by Dennis W. Hill, Ph.D., FAORC

Report Date: 20 March 2007
Revised Date: 22 March 2007

HORSE RACE SAMPLES IN THE UNITED STATES IN 2006

	Jockey		Harness					
Origin	Urine	Blood	Saliva	Urine	Blood	Total	Pos	Notes
Arkansas	651	653				1304	6	1
Arizona	2466	2522				4988	53	2
Colorado	478	511				989	13	3
Florida	7631	8148		1520	1910	19209	96	4
Idaho	540	91				631	12	5
Illinois	3860	3939		5320	5513	18632	68	
Indiana	2070	2314		2095	2608	9087	13	6
Iowa	1827	1999				3826	39	7
Kansas	854	1197				2051	17	
Kentucky	5638	8709				14347	51	8
Louisiana	5268	5670				10938	22	
Maine				2466	8911	11377	24	9
Massachusetts	1668	179		1304	495	3646	27	
Michigan	693	223		4744	15436	21096	37	10
Minnesota	1364	1470				2834	51	11
Montana	131					131	1	
Nebraska	1362	1863				3225	56	12
Nevada	119	119				20	13	
New Hampshire			14	840	1262	2102	30	
New Jersey	2028	6158		5,793	21,898	35877	67	
New Mexico	2310	1473				3783	53	
North Dakota	246	246				492	8	14
Oklahoma	4821	7399				12220	53	15
Oregon	1250	1259				2509	17	16
South Dakota	1	91				92	1	
Virginia	662	721				1383	2	
Washington	1375	1704				3079	22	17
Wyoming	153	138				291	13	
Totals:	49,466	58,796	14	24,082	58,033	190,139	872	

MEDIAN VALUE= 23

Notes:

1-Positives include 6 violations of permissive medication.
2-Positives include 42 therapeutic threshold violations in blood.
3-Positives include 8 therapeutic threshold violations in blood.
4-Additional 47 violations of permissive medication
5-Positives include 11 violations of permissive medication.
6-Positives include 16 violations of permissive medication.
7-Jockey and Harness numbers are not differentiated.
8-Jockey and Harness numbers are not differentiated.
9-Blood count includes samples for general screen (20), TCO2 (4537), EPO (4036) & permitted meds (318).
10-Includes 13 positives due to over permitted limit, 14493 TCO2.
11-Positives include 38 violations of permissive medication.
12-Positives include 47 therapeutic threshold violations in blood.
13-Positives include 12 violations of permissive medication.
14-Positives include 8 therapeutic threshold violations in blood.
15-Positives include 41 violations of permissive medication.
16-Positives include 17 violations of permissive medication.
17-Positives include 21 violations of permissive medication.

APPENDIX F

Slides from the October 23, 2007 presentation
by Scot Waterman, D.V.M. – Executive Director, Racing Medication and Testing Consortium, Inc.

Drug Control in US Horse Racing

Scot Waterman, DVM
Executive Director
Racing Medication & Testing Consortium

Racing Medication & Testing Consortium

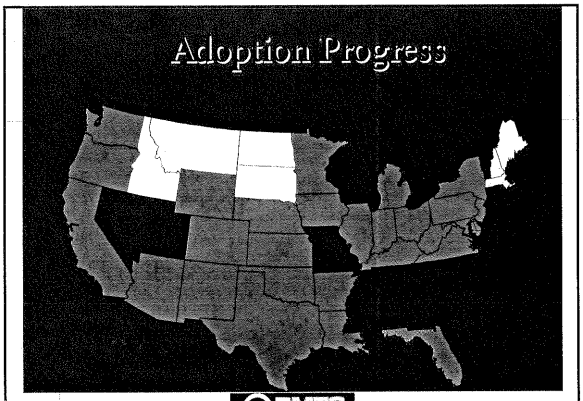
- Began in 2001 at a facilitated meeting to assess whether uniform medication rules was an achievable goal
- RMTC Goals: uniform rules, standardized testing, available money for research, improved security
- Incorporated as a 501 c (3)

RMTC Board

- Horsemen—THA, HBPA, CTT
- Tracks-Magna, Churchill, Oak Tree, Del Mar, HTA, TRA, NYRA, AQH Tracks, Keeneland
- Owners/Breeders—TOBA, TOC, KTA
- Veterinarians—AAEP
- Security—TRPB
- Regulatory Associations—RCI
- Breed Registries/Other—AQHA, The Jockey Club, NTRA/BC, USTA, Hambletonian
- Jockeys—Jockey's Guild

Uniform Rules- RMTC Model Policy

- Released in phases
- Initial phase consisted of language on regulation of furosemide, non-steroidal anti-inflammatory drugs, prohibited practices and procedures
- Phase 1 available for adoption by states since 2004



Uniform Rules Current Work

- New penalty language—makes penalties progressive, mitigating and aggravating factors
- Regulation of anabolic steroids
- Language developed for out-of-competition sampling and testing Looking at strategies to regulate off-track stabling
- Research into adjunct bleeder medications

Integrity and Drug Control in Racing

Racing is uniquely regulated in the United States

- Each state is a "sovereign country" yet racing in the United States is viewed as a singular entity
- Creates hassles for participants and leads to perception issues for the betting public and international participants
- Matters of integrity depend on available resources in the state conducting pari-mutuel wagering

Integrity and Drug Control in Racing

- Three key areas must be working together:
  1. Rules... must be fair, transparent and enforceable
  2. Testing... must look for as wide a variety of substances as possible
  3. Security... must be able to deter unethical behavior

Integrity and Drug Control in Racing

- Weakness in any one of those three key areas makes the system easier to exploit
- How well a commission does at all three mostly dependant on funding from respective state legislature
- Can't fall into the trap of relying on one thing; problem is complex and so is the solution

Integrity and Drug Control in Racing

- How to achieve a positive impact in three key areas:
  - Rules—adoption of RMTC/RCI Model Rules
  - Security—make sure commission has trained investigators, push tracks
  - Testing—the most complex issue and has the highest potential cost

Testing Basics

- Definitions
- Screening Methodologies:
  - Thin Layer Chromatography
  - Immunoassays
  - Instrumental Techniques
- Challenges

Testing Definitions

- Screening test- rapid and sensitive, specificity not crucial. A sample with a positive screening test would be said to be "suspicious"
- Confirmation test- sensitive and specific, if the result is positive the presence of a forbidden substance is said to be confirmed.

Testing Definitions

- Limit of Detection--the lowest concentration of a drug that can be detected by a particular laboratory method
- Limit of Quantitation--the lowest concentration of a drug that can be reliably quantified by a particular laboratory method

Testing Definitions

- Zero Tolerance— somewhat of a misnomer since no testing methodology can detect down to a concentration of zero.
  - Usually used to mean that the laboratory is employing the most sensitive method possible and any concentration detected results in a positive test.

Testing Definitions

- Regulatory Limit
  - When a drug and/or its metabolites are found in the urine or blood at a concentration that is at or below the regulatory limit, no administrative action is taken.
  - Also called a "threshold" or "decision level"

Testing Definitions

- Withdrawal Time
  - The time before a race that the administration of a particular drug needs to be stopped in order to avoid a positive test
  - Must be paired with a concentration of drug which regulates the withdrawal time
  - Because of the many variables horse-to-horse these will always be guidelines only

Testing Basics

- Every winner of every race in the US goes to the test barn
- Depending on the state, one or two additional horses may be selected for testing
- Typically both urine and blood samples are drawn at the test barn
- Samples are tagged with a unique identifier and sealed to begin a chain of custody

Testing Basics

- Samples are refrigerated and usually sent next day to the laboratory
- The laboratory logs in the samples again to maintain chain of custody
- The laboratory then begins the testing process
- Typically the lab has 72 to 96 hours to complete the initial screening process

Testing Basics

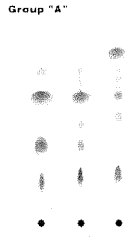
- Screen urine samples using thin layer chromatography (TLC), enzyme linked immunosorbent assays (ELISA) or mass spectral techniques (LC/MS)
- Confirm suspicious findings with mass spectral techniques—GC/MS or LC/MS
- Blood samples- used to quantify the amount of a permitted medication/substance.
  - NSAIDs- phenylbutazone, flunixin, ketoprofen
  - Furosemide- (Lasix)

Testing Basics

- Why Urine?- most drugs undergo renal excretion and concentrations tend to be higher than blood
- In the better equipped laboratories this is starting to change

SCREENING METHODOLOGIES

Thin-Layer Chromatography



- TLC methods permits the simultaneous detection of a wide range of substances in a single analysis.
- Not a sensitive method—LOD typically in the 100 ng/ml range

Immunoassay

- Enzyme-Linked Immunosorbent Assay (ELISA)
  - Sensitive (limit of detection ~1.0 ng/ml)
  - Specific (one drug or one drug class)
  - Fast (uses raw urine for analysis)
  - Relatively inexpensive

ELISA Plate Reader

- ELISA has replaced TLC as the "backbone" of testing in the majority of US testing labs.

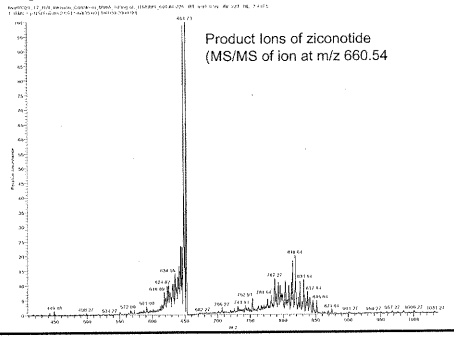
Instrumental screening

- Eliminates TLC and screens each sample through a GC/MS and/or an LC/MS process.
- Supplements with ELISA testing for targeted analysis (opiates, bronchodilators, etc.).
- Can target certain drugs but can also run in "unknown" mode

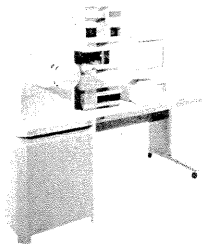
Mass Spectrometry

- The mass spectrometer provides specific identification and increased sensitivity over routine drug screening.
- MS relies on "fingerprints"; compounds have unique fragmentation patterns—instruments can compare these patterns to those stored in a library.

MS/MS Analysis of Ziconotide Ion



Liquid Chromatography/Mass Spectrometry



- Wider use of LC/MS is expected as more drugs that are difficult to detect are created and identification of their metabolites becomes more important.

Laboratory screening methods

- Thin Layer Chromatography
  - LOD... 100 nanograms/ml
  - Are you missing drugs due to the lack of sensitivity?
- ELISA
  - LOD... 1 nanogram/ml
  - Are you using enough of them?
- Mass Spectral Methods
  - LOD... low picogram/ml
  - The future of testing but with a high initial price tag

The Future-Blood Testing

- Blood is a better matrix... less "noise" in the sample, better correlation between time of administration and drug concentration, furosemide effect is eliminated
- Development of new assays looking for potent, low-dose drugs of abuse
  - Anti-psychotics, antidepressants, proteins
- New methodologies/instrumentation (LC/MS) make this possible because of the significant increase in sensitivity

Challenges facing the industry

- Increases in sensitivity creates a dilemma for therapeutic drugs... how long do we want to detect?
- Public does not differentiate between therapeutic and non-therapeutic violations
- There are drugs we can't detect— and there always will be
- What is the appropriate mix of screening methods necessary to do the job well? What is our industry minimum standard?

How will we face these challenges in the next decade?

- Regulatory limits will be adopted for therapeutic medications... requires significant research
- New testing methods and regulatory strategies for difficult drugs— especially protein based
- Must develop and industry standard not based on lowest common denominator
- Move away from state-to-state labs and consolidate and regionalize??

Summary

- Instrumental analysis is gradually replacing TLC and ELISA testing programs
- The industry focus toward more sensitive detection methods will continue
- Blood will eventually replace urine as the primary testing medium
- What strategies will need to be employed to ensure that all states have the necessary capabilities?

Complexity of the Problem

- Erythropoietin— naturally occurring hormone used to boost red blood cell numbers
  - Prohibited drug, no therapeutic use
  - Achieves effect 7-14 days post-administration
  - Drug is detectable by current methods anywhere from 24 to 96 hours post-administration
  - Conventional post-race testing will not detect the drug, detention barns even 24 hours before a race will not stop the administration of the drug

Complexity of the Problem

- Clenbuterol— FDA-approved bronchodilator used to treat breathing problems
  - Useful therapeutic medication, widely administered, easy to detect
  - Illicit use... administered intravenously as close to race as possible to avoid detection in urine
  - If lab is screening only urine are you missing illicit administration? How can we differentiate normal therapeutic use from illicit use?