BEFORE THE PENNSYLVANIA
STATE HORSE RACING COMMISSION

In Re:
PROHIBITED PRACTICES
Temporary Regulations – ARCI Model
Rule

: Administrative Docket No. 2017-12

ORDER

AND NOW, this 31st day of August, 2017, the Commission, in accordance with its
general authority and jurisdiction over pari-mutuel racing activities and specifically, under the
authority set forth in §9311(h) of the Racing Act (3 Pa. C.S. §9311(h)) to adopt temporary
regulations, hereby authorizes the adoption and publication of the temporary rule relating to
“prohibited practices” and prohibited substances and methods (based upon ARCI Model Rules
011-015 and 025-015), as set forth in Annex A attached hereto.

BY THE PENNSYLVANIA
STATE HORSE RACING COMMISSION:

Russell C. Redding, Chairman
PROHIBITED PRACTICES

Section 1. Prohibited Practices.

No person may possess or use a drug, substance or medication on the premises of a racetrack or other facility under the jurisdiction of the Commission for which:

(a) a recognized analytical method has not been developed to detect and confirm the administration of such substance; or

(b) the use of which may endanger the health and welfare of the horse or endanger the safety of the rider or driver; or
Section 2. Prohibited Substances and Methods.

(a) The substances and methods listed in the annexed Prohibited List may not be used at any place or time, and may not be possessed on the premises of a racing or training facility under the jurisdiction of the Commission, except as a restricted therapeutic use.

(b) Restricted Therapeutic Use. A limited number of medications on the Prohibited List shall be exempted when the administration occurs in compliance with the annexed Required Conditions for Restricted Therapeutic Use:

1. Report When Sampled means the administration of the substance must be reported to the commission when the horse is next sampled, if the horse is sampled within 24 hours after the administration;

2. Pre-File Treatment Plan means that if the commission where the horse is located requires the filing of treatment plans, then a treatment plan for the substance must be filed by the time of administration in a manner approved by such commission;

3. Written Approval from Commission means the commission has granted written approval of a written treatment plan before the administration of the substance;

4. Emergency Use (report) means the substance had to be administered due to an acute emergency involving the life or health of the horse, provided the emergency use is reported to the commission as soon as practicable after the treatment occurs;

5. Prescribed by Veterinarian means the substance has been prescribed by an attending veterinarian, in compliance with Chapter 405 Veterinary Practices, and recorded in the veterinary records in the manner required by the commission;

6. Report Treatment means the treatment must be reported to the commission by the trainer at the time of administration to provide the commission with information for the Veterinarian’s List. The trainer may delegate this responsibility to the treating veterinarian, who shall make the report when so designated; and

7. Other Limitations means additional requirements that apply, such as a substance may be used in only fillies or mares or a horse that is administered a substance shall be reported immediately to the commission and placed on the Veterinarian’s List for a specific minimum period of time.

The use of the substance must comply with other applicable rules of the Commission.


No person shall at any time administer any other doping agent to a horse except pursuant to a valid therapeutic, evidence-based treatment plan.

(a) Other doping agent means a substance that is not listed in the annexed Prohibited List, has a pharmacologic potential to alter materially the performance of a horse, has no generally accepted medical use in the horse when treated, and is:

1. capable at any time of causing an action or effect, or both, within one or more of the blood, cardiovascular, digestive, endocrine, immune, musculoskeletal, nervous, reproductive, respiratory, or urinary mammalian body systems; including but not limited to endocrine secretions and their synthetic counterparts, masking agents, oxygen carriers, and agents that directly or indirectly affect or manipulate gene expression; but
(2) not a substance that is considered to have no effect on the physiology of a horse except to improve nutrition or treat or prevent infections or parasite infestations.

(b) The commission may publish advisory warnings that certain substances or administrations may constitute a violation of this rule.

(c) **Therapeutic, evidence-based treatment plan** means a planned course of treatment written and prescribed by an attending veterinarian before the horse is treated that:

1. describes the medical need of the horse for the treatment, the evidence-based scientific or clinical justification for using the doping agent, and a determination that recognized therapeutic alternates do not exist; and
2. complies with Veterinary Practices (Chapter 405), meets the standards of veterinary practice of the jurisdiction, and is developed in good faith to treat a medical need of the horse.

(d) Such plans shall not authorize the possession of a doping agent on the premises of a racing or training facility under the jurisdiction of the commission.

### Section 4. Blood Doping Agents Prohibited.

The possession and/or use of the following substances or of blood doping agents, including but not limited to those listed below, on the premises of a facility under the jurisdiction of the Commission is forbidden:

- (a) Aminoimidazole carboxamide ribonucleotide (AICAR)
- (b) Darbepoetin
- (c) Equine Growth Hormone
- (d) Erythropoietin
- (e) Hemopure®
- (f) **Myo**-Inositol Trispyrophosphate (ITPP)
- (g) Oxyglobin®
- (h) Thymosin beta
- (i) Venoms or derivatives thereof
- (j) Thymosin beta

### Section 5. Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy.

The use of Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy shall not be permitted unless the following conditions are met:

(a) Any Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy machine, whether in operating condition or not, must be registered with and approved by the Commission or its designee before such machine is brought to or possessed on any racetrack or other facility within the jurisdiction of the commission;

(b) The use of Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy within the jurisdiction:

1. shall be limited to veterinarians licensed to practice by the commission;
2. may only be performed with machines that are:
   (i) registered and approved for use by the commission; and
   (ii) used at a previously-disclosed location that is approved by the commission
3. must be reported within 24-hours prior to treatment on the prescribed form to the official veterinarian.

(c) Any treated horse shall not be permitted to race or breeze for a minimum of 10 days following treatment;

(d) Any horse treated with Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy shall be added to a list of ineligible horses. This list shall be kept in the race office and accessible to the jockeys, drivers, trainers and/or their agents during normal business hours and be made available to other regulatory jurisdictions.

(e) A horse that receives any such treatment without full compliance with this section and similar rules in any other jurisdiction in which the horse was treated shall be placed on the Steward’s List.

(f) Any person participating in the use of ESWT and/or the possession of ESWT machines in violation of this rule shall be considered to have committed a Prohibited Practice and is subject to a Class A Penalty.

Section 6. Nasogastric Tube.

The use of a nasogastric tube (a tube longer than six inches) for the administration of any substance within 24 hours prior to the post time of the race in which the horse is entered is prohibited, unless performed by a licensed practicing veterinarian and logged in a treatment sheet in accordance with chapter 405.
Annex I
PROHIBITED SUBSTANCES

All substances in the categories below shall be strictly prohibited unless otherwise provided in accordance with ARCI-011-015 or ARCI-025-015. Any reference to substances in this section does not alter the requirements for testing concentrations in race day samples.

Nothing in this list shall alter the requirements of post-race testing.

S0. NON-APPROVED SUBSTANCES
Any pharmacologic substance that is not approved by any governmental regulatory health authority for human or veterinary use within the jurisdiction is prohibited. This prohibition includes drugs under pre-clinical or clinical development, discontinued drugs, and designer drugs (a synthetic analog of a drug that has been altered in a manner that may reduce its detection); but does not include vitamins, herbs and supplements for nutritional purposes that do not contain any other prohibited substance, or the administration of a substance with the prior approval of the commission in a clinical trial for which an FDA or similar exemption has been obtained.

S1. ANABOLIC AGENTS
Anabolic agents are prohibited.

1. Anabolic Androgenic Steroids (AAS)

1.1. Exogenous AAS, including:

- 1-androstenediol (5α-androst-1-ene-3β,17β-diol);
- 1-androstenedione (5α-androst-1-ene-3,17-dione);
- bolandiol (estr-4-ene-3β,17β-diol);
- bolasterone;
- boldenone;
- boldione (androsta-1,4-diene-3,17-dione);
- calusterone;
- clorobol;
- danazol ([1,2]oxazol[4',5':2,3]pregna-4-en-20-yn-17α-ol);
- dehydrochloromethyltestosterone (4-chloro-17β-hydroxy-17α-methylandrosta-1,4-dien-3-one);
- desoxymethyltestosterone (17α-methyl-5α-androst-2-en-17β-ol);
- drostanolone;
- ethylestrenol (19-
norpregna-4-en-17α-ol); fluoxymesterone; formebolone; furazabol
(17α-methyl[1,2,5]oxadiazolo[3′,4′:2,3]-5α-androstan-17β-ol);
gestrinone; 4-hydroxytestosterone (4,17β-dihydroxyandrost-4-en-3-
one); mestanolone; mesterolone; metandienone (17β-hydroxy-17α-
methylandrosta-1,4-dien-3-one); metenolone; methandriol;
methasterone (17β-hydroxy-2α,17α- dimethyl-5α-androstan-3-one);
methyltrienolone, 17β-hydroxy-17α-methyl-5α-androst-1-en-3-one);
methyltestosterone; metribolone (methyltrienolone, 17β-
methylhydroxy-17α-methylenestra-4,9,11-trien-3-one); mibolerone;
nandrostenol; 19-norandrostenedione (estr-4-ene-3,17-dione);
norboleton; nortestosterone; oxabolone; oxandrolone; oxy
mesterone; oxymetholone; prostanol (17β-
[(tetrahydropryran-2-yl)oxy]-1'H-pyrzolo[3,4:2,3]-5α-
androstane); quinabolone; stanozolol; stenbolone; 1-testosterolne (17β-
hydroxy-5α-androst-1-en-3-one); tetrahydrogestrinone (17-hydroxy-18a-
homo-19-nor-17α-pregna-4,9,11-trien-3-one); trenbolone (17β-
hydroxyestren-4,9,11-trien-3-one); and other substances with a
similar chemical structure or similar biological effect(s).

1.2. Endogenous AAS or their synthetic esters when administered
exogenously:

androstenediol (androst-5-ene-3β,17β-diol); androstenedione (androst-
4-ene-3,17-dione); dihydrotestosterone (17β-hydroxy-5α-androstan-3-
one); prasterone (dehydroepiandrosterone, DHEA, 3β-hydroxyandrost-
5-en-17-one); testosterone;

and their metabolites and isomers, including but not limited to:

5α-androstane-3α,17α-diol; 5α-androstane-3α,17β-diol; 5α-
androstane-3β,17α-diol; 5α-androstane-3β,17β-diol; 5β-androstane-3
α, 17β-diol, androst-4-ene-3α,17α-diol; androst-4-ene-3α,17β-diol;
androst-4-ene-3β,17α-diol; androst-5-ene-3α,17α-diol; androst-5-ene-
3α,17β-diol; androst-5-ene-3β,17α-diol; 4-androstenediol (androst-4-
en-3β,17β-diol); 5-androstenedione (androst-5-ene-3α,17-dione);
andosterone (3β-hydroxy-5α - androstan-17-one); epit
dihydrotestosterone; epitestosterone; etiocholanolone; 7α-hydroxy-
DHEA ; 7β-hydroxy-DHEA; 7-keto-DHEA;19-norandosterone; 19-
noretiocholanolone.

2. Other Anabolic Agents, including but not limited to:

Clenbuterol, selective androgen receptor modulators (SARMs e.g.,
andarine and ostarine), ractopamine, tibolone, zeranol, zilpaterol.
S2. PEPTIDE HORMONES, GROWTH FACTORS AND RELATED SUBSTANCES

The following substances, and other substances with similar chemical structure or similar biological effect(s), are prohibited:

1. Erythropoietin-Receptor agonists:
   1.1 Erythropoiesis-Stimulating Agents (ESAs) including, e.g., darbepoetin (dEPO); erythropoietins (EPO); EPO-Fc; EPO-mimetic peptides (EMP), e.g., CNTO 530 and peginesatide; and methoxypolyethylene glycol-epoetin beta (CERA); and
   1.2 Non-erythropoietic EPO-Receptor agonists, e.g., ARA-290, asialo EPO and carbamylated EPO;

2. Hypoxia-inducible factor (HIF) stabilizers, e.g., cobalt (when found in excess of regulatory authority limits) and roxadustat (FG-4592); and HIF activators, (e.g., argon, xenon);

3. Chorionic Gonadotropin (CG) and Luteinizing Hormone (LH) and their releasing factors, in males;

4. Corticotrophins and their releasing factors;

5. Growth Hormone (GH) and its releasing factors including Growth Hormone Releasing Hormone (GHRH) and its analogues, e.g., CJC-1295, sermorelin and tesamorelin; Growth Hormone Secretagogues (GHS), e.g., ghrelin and ghrelin mimetics, e.g., anamorelin and ipamorelin; and GH-Releasing Peptides (GHRPs), e.g., alexamorelin, GHRP-6, hexarelin and pranlone (GHRP-2);

6. Venoms and toxins including but not limited to venoms and toxins from sources such as snails, snakes, frogs, and bees as well as their synthetic analogues such as ziconotide.

7. In addition, the following growth factors are prohibited:

   Fibroblast Growth Factors (FGFs), Hepatocyte Growth Factor (HGF), Insulin-like Growth Factor-1 (IGF-1) and its analogues, Mechano Growth Factors (MGFs), Platelet-Derived Growth Factor (PDGF), Vascular-Endothelial Growth Factor (VEGF) and any other growth factor affecting muscle, tendon or ligament protein synthesis/degradation, vascularization, energy utilization, regenerative capacity or fiber type switching.
S3. BETA-2 AGONISTS

All beta-2 agonists, including all optical isomers (i.e. $d$- and $l$-) where relevant, are prohibited.

S4. HORMONE AND METABOLIC MODULATORS

The following are prohibited:

1. Aromatase inhibitors, including but not limited to: aminoglutethimide, anastrozole, androsta-1,4,6-triene-3,17-dione (androstatrienedione), 4-androstene-3,6,17 triione (6-oxo), exemestane, formestane, letrozole, testolactone;

2. Selective estrogen receptor modulators (SERMs), including but not limited to: raloxifene, tamoxifen, toremifene;

3. Other anti-estrogenic substances, including but not limited to: clomiphene, cyclofenil, fulvestrant;

4. Agents modifying myostatin function(s), including but not limited to: myostatin inhibitors;

5. Metabolic modulators:
   
   5.1. Activators of the AMP-activated protein kinase (AMPK), e.g., AICAR, and Peroxisome Proliferator Activated Receptor δ (PPARδ) agonists (e.g., GW 1516);
   
   5.2 Insulins;
   
   5.3 Trimetazidine; and
   
   5.4. Thyroxine and thyroid modulators/hormones, including but not limited to those containing T4 (tetraiodothyronine/thyroxine), T3 (triiodothyronine), or combinations thereof.

S5. DIURETICS AND OTHER MASKING AGENTS

The following diuretics and masking agents are prohibited, as are other substances with similar chemical structure or similar biological effect(s): acetazolamide, amiloride, bumetanide, canrenone, chlorthalidone, desmorpressin, etacrynic acid, indapamide, metolazone, plasma expanders (e.g. glycerol; intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol), probenecid, spironolactone, thiazides (e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide), torsemide, triamterene, and vasopressin receptor antagonists or vaptans (e.g., tolvaptan).
Furosemide and trichlormethiazide may be administered only in a manner permitted by other rules of the commission.

**PROHIBITED METHODS**

**M1. MANIPULATION OF BLOOD AND BLOOD COMPONENTS**

The following are prohibited:

1. The administration or reintroduction of any quantity of autologous, allogenic (homologous) or heterologous blood or red blood cell products of any origin into the circulatory system.

2. Artificially enhancing the uptake, transport or delivery of oxygen, including, but not limited to, perfluorochemicals, efaproxiral (RSR13) and modified hemoglobin products (e.g. hemoglobin-based blood substitutes, microencapsulated hemoglobin products), excluding supplemental oxygen.

3. Any form of intravascular manipulation of the blood or blood components by physical or chemical means.

**M2. CHEMICAL AND PHYSICAL MANIPULATION**

Tampering, or attempting to tamper, in order to alter the integrity and validity of samples collected by the commission, is prohibited. These methods include but are not limited to urine substitution or adulteration (e.g., proteases).

**M3. GENE DOPING**

The following, with the potential to enhance sport performance, are prohibited:

1. The transfer of polymers of nucleic acids or nucleic acid analogues.

2. The use of normal or genetically modified hematopoietic cells.
### Annex II

### Restricted Therapeutic Use Requirements

<table>
<thead>
<tr>
<th>Prohibited Substance</th>
<th>Report When Sampled</th>
<th>Pre-File Treatment Plan</th>
<th>Written Approval from Commission</th>
<th>Emergency Use (report)</th>
<th>Prescribed by Veterinarian</th>
<th>Report Treatment</th>
<th>Other Limitations</th>
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x-1: The approved treatment plan must show a specific treatment of a specific individual horse for an undescended testicle condition.

x-2: The approved treatment plan must show: (A) the substance has a generally accepted veterinary use; (B) the treatment provides a significant health benefit for the horse; (C) there is no reasonable therapeutic alternative; and (D) the use of the substance is highly unlikely to produce any additional enhancement of performance beyond what might be anticipated by a return to the horse's normal state of health, not exceeding the level of performance of the horse prior to the onset of the horse's medical condition.

x-3: The approved treatment plan must show: (A) the thyroxine is prescribed to a specific individual horse for a specific period of time; (B) the diagnosis and basis for prescribing such drug, the dosage, and the estimated last administration date; and (C) that any container of such drug on licensed premises shall be labeled with the foregoing information and contain no more thyroxine than for the treatment of the specific individual horse, as prescribed.