



Tuesday, July 1, 2014

## MEMO

**To:** Larry Bruskin, P.E. Hazardous Materials and Waste Management Division, Colorado Department of Public Health and Environment.

**From:** Paul Quick, Denver Zoological Foundation; Jennifer Hale Denver Zoological Foundation

**Subject:** Request for waiver on Certificate of Designation (CD) under Section 1.5

Larry,

Denver Zoological Foundation (DZF) would like to request a waiver to the Certificate of Designation (CD) Application consisting of an Engineering Design and Operations Plan (EDOP) as stated under Section 1.5 of the Colorado Solid Waste Regulations, 6 CCF 1007-2.

Below is the Information required under Section 1.5 of the Solid Waste Regulations:

### Section 1.5.1

#### (A) Name and address of the applicant and the owner:

<b>Name</b>	Denver Zoological Foundation, Inc.	
<b>Address (Physical)</b>	2900 E 23 <sup>rd</sup> Ave. Bldg #31108, Denver, CO 80205 City Park, City and County of Denver	
<b>Mailing Address</b>	2300 Steele Street, Denver, CO 80205	
<b>Telephone number (Operations)</b>	720.337.1500	
<b>Site Manager</b>	George Pond Vice President of Design and Campus Management	Phone: 720.337.1496 Email: <a href="mailto:gpond@denverzoo.org">gpond@denverzoo.org</a>
<b>Denver Zoo Waste-to-Energy System Manager</b>	Paul Quick Director of Special Projects	Phone: 720.317.2995 Email: <a href="mailto:pquick@denverzoo.org">pquick@denverzoo.org</a>
<b>Environmental Regulatory Contact</b>	Jennifer Hale Director of Safety and Sustainability	Phone: 720.337.1558 Email: <a href="mailto:jhale@denverzoo.org">jhale@denverzoo.org</a>

**(B) Site address and legal Description:**

<b>Legal Description:</b>	TS 35 R68W NW ¼ section 36
<b>County</b>	Denver
<b>Geographic Coordinates:</b>	39°45'N 104°57'W
<b>Mailing Address:</b>	2300 Steele Street, Denver, CO 80205
<b>Phone number:</b>	720.337.1500 (Operations)

**(C) Site or Facility Name:**

The Waste Management Building is located in the southwest corner of the Denver Zoo, within the new 10-acre Toyota Elephant Passage (TEP) exhibit. The Waste Management Building can be seen from the adjacent Duck Lake boundary on the west side of City Park.

**(D) County and township, section where the site is located.**

The Denver Zoo campus encompasses approximately 80 acres (including parking lots) in City Park in the City and County of Denver, Colorado, and has the geographical coordinates of 39°45'N 104°57'W. The Waste Management Building, which includes the waste handling and solid fuel development operations for the Denver Zoo Waste-to-Energy System, is located within the new 10-acre Toyota Elephant Passage (TEP) exhibit located on the south management boundary of Denver Zoo, adjacent to Duck Lake in City Park. The Denver Zoo is bounded on all sides by City Park, which is owned by the City and County of Denver and managed by the City's Department of Parks and Recreation.

**(E) Type, size, expected active life and operational history of the facility.**

The Waste Management Building/Facility is sized to handle a maximum of approximately 5 tons/day of "as-received" material. The facility is currently not operational and many components of the facility are still being designed/engineered/tested prior to installation. The expectations of the facility is that 20 years of operations should be achievable with proper maintenance and operational procedures, although at this time technological replacements will be the likely outcome and the facility should remain operational afterward. Not all equipment will have equal life cycles and much of the equipment longevity will be determined through the operation of the facility as it is unique in design, engineering, and operation.

**(F) Geological, hydrologic, and engineering and other such information necessary to support the applicant's waiver request.**

Information was requested by the state following "completeness" review described under 1.6.5 of 6 CCR 1007-2 in Regulations Pertaining to Solid Waste Sites and Facilities (Solid Waste Regulations) in a response via e-mail from Rob Eber on 5/15/2014. DZF believes that the

requested engineering information is already covered by the Colorado Department of Public Health and Environment (CDPHE)'s Air Pollution Control Division under Construction Permit # 12DE2647. DZF also believes that this is above and beyond the intent of the Section 11.1 in the Solid Waste Regulations as "Approval by the Hazardous Materials and Waste Management Division shall not relieve the application from its obligation to comply with the requirements of other public agencies including but not limited to the Air Pollution Control Division....." which DZF believes is stated to ensure operations outside of solid waste handling and processing are covered by the appropriate agencies.

The requested information (described below – primarily found in Section 11.2.3) is also considered Confidential Business Information (CBI) and embodies trade secrets as defined under 18 U.S.C. §1839 and C.R.S. § 7-74-102, as amended, and is commercial or financial information which is privileged or confidential under the Freedom of Information Act (5 U.S.C. §552(b)(4)) and the Colorado Open Records Act (CORA), C.R.S. §§ 24-72-201, *et. seq.*

No geological or hydrologic information is necessary for the waiver.

**(G) The specific regulatory subsections for which the waiver request is being filed.**

DZF is requesting that the following sections be waived from the Section 11 of 6 CCF 1007-2 (crossed out for clarification):

11.2.3 (E) – The size, type, capacity and general specification and anticipated performance of equipment handling, processing and storage of waste, ~~energy recovery, air emissions control and process monitoring systems.~~

11.2.3 (H) – The anticipated recovery rate of marketable materials ~~or energy.~~

11.2.3 (I) – A detailed engineering description of the incinerator including:

~~(2) Construction material and specifications.~~

~~(4) Capacity of feed charging system~~

~~(5) Description of the combustion control system: air control, warning systems, auxiliary fuel/waste feed cutoff, waste moving/mixing system;~~

~~(6) The design and operating conditions for the proposed incinerator for the most efficient combustion of solid waste including:~~

~~(a) Expected carbon monoxide (CO) level in the stack exhaust gas~~

~~(b) Waste feed rate~~

~~(c) Combustion zone temperature and location and method of measurement.~~

~~(d) Expected stack gas volume, flow rates and temperatures.~~

~~(e) Computed residence time for waste in the combustion zone.~~

~~(f) Propose waste feed cut off limits based on identified significant operating parameters.~~

~~(g) Air pollution control equipment, operations variables and normal operating ranges, methods of monitoring, and actions to be taken in the event the equipment and instruments exceed normal operating ranges.~~

Please feel free to call Jennifer Hale (720-337-1558) or myself (720-317-2995) with any questions or further clarification.

Best Regards,

A handwritten signature in blue ink, consisting of a large, stylized 'P' followed by a cursive name, all enclosed within a large, loopy oval shape.

Paul Quick, LEED-AP  
Director of Special Projects  
Denver Zoological Foundation  
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Denver, Co 80216