Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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November 10, 2009

Alan Marley
Lynch Creek Animal Clinic
7273 MT Hwy 200
Plains, MT 59859

Dear Alan Marley:

The Department of Environmental Quality (Department) has made its decision on the Montana Air Quality Permit application for Lynch Creek Animal Clinic's incinerator (crematorium). The application was given permit number 4456-00. The Department's decision may be appealed to the Board of Environmental Review (Board). A request for hearing must be filed by November 25, 2009. This permit shall become final on November 26, 2009, unless the Board orders a stay on the permit.

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

Conditions: See attached.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Shawn Juers
Environmental Engineer
Air Resources Management Bureau
(406) 444-2049

VW:SJ
Enclosure

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Lynch Creek Animal Clinic
7273 MT Hwy 200
Plains, MT 59859

Montana Air Quality Permit Number: 4456-00

Preliminary Determination Issued: 10/9/2009
Department Decision Issued: 11/10/2009
Permit Final:

1. *Legal Description of Site*: Section 16, Township 20 North, Range 26 West, in Sanders County, Montana

2. *Description of Project:* LC Animal Clinic proposes to install a controlled air incinerator for the purposes of animal cremation. The proposed incinerator is a 1995 Shenandoah Model P16-T controlled air incinerator (incinerator) rated for a maximum of 60 pounds per hour (lb/hr) of animal remains, fired on liquefied petroleum gas. The primary chamber has a maximum rated design capacity of 316,000 BTU/hr and the secondary chamber has a maximum rated design capacity of 414,500 BTU/hr. The minimum recommended secondary chamber operating temperature is 1600 °F.

3. *Objectives of Project*: The objective of the project is to generate revenue and provide a safe means of disposal of animal remains.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because LC Animal Clinic demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4456-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			xx			Yes
B	Water Quality, Quantity, and Distribution			xx			Yes
C	Geology and Soil Quality, Stability and Moisture			xx			Yes
D	Vegetation Cover, Quantity, and Quality			xx			Yes
E	Aesthetics			xx			Yes
F	Air Quality			xx			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			xx			Yes
H	Demands on Environmental Resource of Water, Air and Energy			xx			Yes
I	Historical and Archaeological Sites				xx		Yes
J	Cumulative and Secondary Impacts			xx			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Emissions from the project may affect terrestrial and aquatic life and habitats in the project area. However, any emissions and resulting impacts from the project would be expected to be very minor due to the low concentration of those pollutants emitted.

Further, the crematorium would operate within an existing building. Overall, any impact to the terrestrial and aquatic life and habitats of the project area would be minor.

B. Water Quality, Quantity and Distribution

The project would not be expected to affect water quantity or distribution in the project area. The crematorium operates within a building and does not discharge or use water during operation.

Emissions from the project may affect water quality in the project area due to air pollutant deposition. However, any emissions and resulting deposition impacts from the project would be very minor due to the low concentration of those pollutants emitted.

C. Geology and Soil Quality, Stability and Moisture

The project would not be expected to affect the geology, stability, and moisture of the project area. The project may affect soil quality due to pollutant deposition.

Proper crematorium operation would result in minor air pollution emissions to the ambient environment. These pollutants would deposit on the soils in the surrounding area. However, any impact from deposition of these pollutants would be very minor due to dispersion

characteristics and the low concentration of those pollutants emitted.

D. Vegetation Cover, Quantity, and Quality

Air emissions from the project may affect vegetation cover, quantity, and quality in the project area. However, any emissions and resulting impacts from the project would be minor due to the dispersion characteristics and the low concentration of those pollutants emitted.

Further, the crematorium operates within an existing building. Overall, any impact to the vegetation cover, quantity, and quality of the proposed project area would be minor.

E. Aesthetics

The project would result in a minor impact to the aesthetic nature of the project area. The crematorium would operate within a building. Further, visible emissions from the source would be limited to 10% opacity. Therefore, the project would result in only a minor impact to aesthetics of the area.

F. Air Quality

The project would result in the emissions of various criteria pollutants and HAPs to the ambient air in the project area. However, it has been demonstrated by air dispersion modeling that any air quality impacts from the project would be minor and would constitute negligible risk to human health and the environment.

Due to the dispersion characteristics and low levels of pollutants that would be emitted from the incinerator, the Department determined that any impacts to air quality would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the area of operation, contacted the Montana Natural Heritage Program (MNHP). Search results of databases indicated 6 species occurrence reports for 4 species of concern; the Bald Eagle, the Westslope Cutthroat Trout, the Bull Trout, and the Gray Wolf.

The gray wolf has a listed state conservation status of S3, signifying a state-level rank of vulnerable. Vulnerable is defined by NatureServe.org as at moderate risk of extinction or elimination in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation. The global conservation status is G4, signifying a global-level rank of "apparently secure." "Apparently secure" is defined by NatureServe.org as uncommon but not rare; some cause for long-term concern due to declines or other factors. In the mid-to-late 1980s, in an effort to restore wolf populations, the gray wolf was reintroduced into three recovery areas – Northwestern Montana, Central Idaho, and the Greater Yellowstone.

The wolf exhibits no particular habitat preference except wolves usually occupy areas with few roads or human disturbance. The Department would not expect the facility to have an impact on the local gray wolf population. Furthermore, the emissions from this project are very low and would not be expected to have a discernable impact.

The westslope cutthroat trout and the bull trout has a listed state conservation status of S2, signifying a state level rank of imperiled. Imperiled is defined by NatureServe.org as rarity due to very restricted range, very few populations, steep declines, or other factors making it very

vulnerable to extirpation from jurisdiction.
The incinerator does not discharge or use water; therefore, only impacts from deposition of air pollutants require consideration. As shown in the Potential-To-Emit calculations of the Permit Analysis, the potential emissions from this source, operating 8,760 hours per year, are extremely small. Therefore, no discernable impacts to the westslope cutthroat trout or the bull trout would be expected as a result of this project.

The Bald Eagle has a listed state conservation status of S3, signifying a state-level rank of vulnerable. The global conservation status is G5, signifying a global-level rank of "secure." "Secure" is defined by NatureServe.org as common; widespread and abundant. The bald eagle is found primarily in forested areas along rivers and lakes, especially during breeding season. However, nesting site selection is dependent upon food availability and disturbance from human activity.

The MNHP identified a bald eagle nest located within 2.5 miles of the proposed incinerator. To aid in determining potential impacts to the local Bald Eagle population, the Department consulted the U.S. Department of Interior, Bureau of Reclamation Montana Bald Eagle Management Plan (MBEMP). With the identified nests being greater than 0.5 mile away from the proposed facility, the site would fall into an MBEMP "Zone III" Classification, representing home range for bald eagles. Zone III is classified as the area from 0.5 mile to 2.5 miles in radius from the nest site (Zone II from 0.25 to 0.5 miles, Zone I from 0 to 0.25 miles). Zone III represents most of the home range used by eagles during nesting season, usually including all suitable foraging habitat within 2.5 miles of all nest sites in the breeding area that have been active within 5 years. The objectives in Zone III areas include maintaining suitability of foraging habitat, minimizing disturbance within key areas, minimizing hazards, and maintaining the integrity of the breeding area.

The nest locations would be expected to remain unchanged by the facility operation. As described in Section 7.D of this environmental assessment, any impacts to Vegetation Cover, Quantity, and Quality from pollutant deposition would be expected to be very minor, if any. Therefore, this project would not be expected to have discernable impacts to the foraging habitat. Because the incinerator would be installed in an already existing building, the project would not be expected to increase disturbance within the area. As described be Section 7.F, due to the dispersion characteristics and low levels of pollutants that would be emitted from the incinerator, the Department determined that any impacts to air quality would be minor.

Therefore, the impact on bald eagles from this project is expected to be minor. Furthermore, this conclusion is made in reviewing the facility's Potential-To-Emit based on 8,760 hours of operation per year.

H. Demands on Environmental Resource of Water, Air and Energy

The project would not be expected to result in any more than a negligible increase in demand for water as the incinerator does not use or discharge water. A small amount of energy in the form of propane (LPG) is required to operate the incinerator. The maximum heat input for the proposed incinerator is rated at 730,500 British thermal units (Btu) per hour. This demand would be extremely small on an industrial scale. As discussed in section F. above, only a very minor impact to air quality would be expected as a result of this project. Therefore, the overall demand on Environmental Resources would be minor.

I. Historical and Archaeological Sites

This project would operate within an already existing building. Therefore, no impacts to historical or archaeological sites would be expected as a result of this project.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the environment in the immediate area would be minor.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			xx			Yes
B	Cultural Uniqueness and Diversity				xx		Yes
C	Local and State Tax Base and Tax Revenue			xx			Yes
D	Agricultural or Industrial Production				xx		Yes
E	Human Health			xx			Yes
F	Access to and Quality of Recreational and Wilderness Activities			xx			Yes
G	Quantity and Distribution of Employment				xx		Yes
H	Distribution of Population				xx		Yes
I	Demands for Government Services			xx			Yes
J	Industrial and Commercial Activity				xx		Yes
K	Locally Adopted Environmental Plans and Goals					xx	Yes
L	Cumulative and Secondary Impacts			xx			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed project is to install a 60 lb/hr animal cremation incinerator at an existing place of business. The incinerator's emissions would be extremely low on an industrial scale and opacity limitations of Montana Air Quality Permit #4456-00 would require 10% or less opacity while operating. Any change to social structures or mores would be minor, if any.

B. Cultural Uniqueness and Diversity

The proposed project would not cause a change in the cultural uniqueness and diversity of the area because the incinerator is proposed to be installed in an existing business; therefore, the land use would not be changing.

C. Local and State Tax Base and Tax Revenue

The proposed project may provide additional revenue for LC Animal Clinic. However, no need for additional employees would be expected as a result of this project. Therefore, little, if any impacts to the local and state tax base and tax revenue are anticipated from this project.

D. Agricultural or Industrial Production

The proposed project would not result in a reduction of available acreage of any agricultural land. Furthermore, the potential-to-emit of the proposed project is extremely small. Based on the small amount of emissions and the dispersion of those emissions, no discernable amount of impact would be expected to agricultural or industrial production in the area.

E. Human Health

As described in Section VI of the Permit Analysis, modeling and analysis of hazardous air pollutants showed negligible risk to human health. Furthermore, the potential-to-emit of conventional pollutants would be extremely small. Impacts to human health would be minor, if any discernable amount at all.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project is to install the incinerator at an existing place of business. No change to access of recreational and wilderness activities would be expected. Permit conditions would require opacity of the emissions to be 10% or less while operating. The potential-to-emit of the proposed incinerator would be very small. Therefore, minor, if any impact to the quality of recreational and wilderness activities would be expected as a result of this project.

G. Quantity and Distribution of Employment

No need for a change in the number of employees would be expected as a result of this project. Therefore, no impacts to the quantity and distribution of employment would be expected.

H. Distribution of Population

No need for a change in the number of employees would be expected and no other factors affecting distribution of population would be expected to be present as a result of this project. The project proposes to install the incinerator in an exiting place of business. Furthermore, opacity limitations in the permit would require a 10% or less opacity of emissions. Therefore, no impacts to the distribution of population would be expected.

I. Demands for Government Services

Because this project meets the definition of an incinerator pursuant to 75-2-215Montana Code Annotated (75-2-215 MCA), a Montana Air Quality Permit is required prior to construction, installation, alteration, or use of the animal crematorium (incinerator). The primary demand on government services would be the acquisition of the appropriate permits by the facility and compliance verification with those permits. Therefore, demands for government services would include the requirements of permitting and compliance for these sources.

J. Industrial and Commercial Activity

The project may increase revenue and business for LC Animal Clinic. However, the project would be to install the incinerator in a building already conducting animal clinic services. Therefore, no impacts to industrial and commercial activity would be expected as a result of this project.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals this project may impact.

L. Cumulative and Secondary Impacts

Operation of the incinerator as designed and required by Montana Air Quality Permit 4456-00 would result in a very small amount of emissions, with negligible human health risk, and minor, if any, discernable impacts to the surrounding environment. Overall, the cumulative and secondary impacts of the project would be minor.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of an animal crematorium (incinerator). MAQP #4456-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Shawn Juers
Date: 09/24/2009