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Terri A. Lorenzon, Attorney
Environmental Quality Council

MEMORANDUM

TO: Mr. John Darrington, Chairman, Environmental Quality Council

FROM: *David Finley* David Finley, Administrator, Solid and Hazardous Waste Division

SUBJECT: Town of Sundance Request for Variance from Solid Waste Management Facility Location Standards

DATE: July 13, 1993

The Town of Sundance is requesting a variance from Solid Waste Management facility location requirements for a proposed expansion of the Sundance sanitary landfill. A variance application was submitted by the Town of Sundance in accordance with Chapter I, Section 2(i) of the Solid Waste Management rules and regulations. The proposed expansion of the existing landfill is in violation of the following location requirements:

1. Distance to Interstate 90;
2. distance to drinking water sources;
3. distance from incorporated cities or towns; and
4. distance to occupied dwellings.

The Department's review of the variance application is attached with this memorandum. The Department's recommendations concerning individual variances from the four location standards listed above are as follows:

1. **Distance to I-90:** The expansion poses the potential for visual impacts along I-90 and will be very visible from the rest area on the east side of Sundance. If not operated in compliance with solid waste rules, odor, vector and other nuisances may be noticeable from the rest area once the landfill expansion is fully developed. Cell numbers 22-26 will be the most visible from the interstate and the rest area. The rest area has a manned tourist information booth and a wildlife exhibit. This is the first rest stop in Wyoming traveling west along I-90 through the Black Hills. It is a well traveled tourist route to Devils Tower. The current landfill operation is visible from I-90 but is far enough away not to create visual impacts. The proposed expansion will be much closer to the interstate and the rest area. This potential for visual impacts and other nuisance factors should be carefully considered by the Council particularly because this is a very scenic area, well traveled by tourists. It should be noted here that the Town of Sundance operates the landfill in a manner that helps reduce visual and nuisance impacts.

The Department recommends two alternatives to the proposed landfill development plan that should reduce visual and nuisance impacts in regard to the distance from I-90 and the rest area:

cc: EQC. 3-2-8-94.ccc.

#2
EXHIBIT #2 (STATE)

- A. Eliminate cell numbers 22 through 26 from the proposed expansion development. This will eliminate most of the potential visual and nuisance impacts from the proposed expansion.
 - B. Screen from view areas of the landfill that are visible from the rest area. A vegetative screen planted now would be fully developed within forty to fifty years when cells 22-26 are scheduled to be developed.
2. **Distance to permitted water wells:** The proposed expansion is within 1/2 mile of two permitted water wells that are located downgradient from the waste disposal site. The two closest wells are approximately 2000 feet from the expansion boundaries. Ground water monitoring should detect any migration of leachate that could impact these wells. If water quality impacts are observed, corrective action measures will be taken, reducing the potential for impacting the water quality of these water wells. The department recommends that the variance be granted in relation to this location standard.
3. **Distance to incorporated cities or towns.** The proposed expansion is located within one mile of the Town of Sundance. The location of the landfill expansion in relation to the Town of Sundance should not create problems because it is separated from the town by the interstate. The department recommends that the variance be granted in relation to this location standard.
4. **Distance to occupied dwellings.** Consent to expand the landfill was granted by all residents within one mile except for an elderly woman whose son did not believe she was able to consider the consequences of granting consent. The proposed expansion of the landfill boundary to the north should have the greatest effect to residents north of the interstate. The interstate corridor should provide an adequate buffer between the landfill operations and residences within one mile. The department recommends that the variance be granted in relation to this location standard.

The Department also recognizes that unique circumstances apply to the applicant that may justify granting the variance. In the case of this variance application, the proposed landfill extension is located adjacent to the existing landfill and the sewage lagoons. The proposed facility constitutes logical development of the site and will provide waste management capacity for 60 years. The location of the proposed facility limits impacts from waste disposal to an area already aesthetically impacted by the same disposal practices and the sewage lagoons.

The Department requests that the Environmental Quality Council hold the variance hearing in the Town of Sundance to encourage public participation in this decision.

cc: James Miller, Mayor of Sundance
Carl Anderson, SHWD/Cheyenne
Patricia Gallagher, SHWD/Cheyenne
File 10.580

REVIEW OF TOWN OF SUNDANCE APPLICATION FOR A VARIANCE FROM SOLID WASTE MANAGEMENT CHAPTER II LOCATION STANDARDS.

This document is the Department of Environmental Quality/Solid and Hazardous Waste Division review of the Town of Sundance's application for a variance from Chapter II location standards for the proposed expansion of the Sundance sanitary landfill. The variance request is for the following location requirements:

1. One mile of an incorporated town.
2. One-half mile of permitted water wells.
3. One-half mile of the right-of-way to Interstate 95.
4. One mile of occupied dwellings.

The information required in the variance application is contained in Chapter I, Section 2 (i) of the Solid Waste Management rules and regulations. The review form is structured to address each information request as it appears in Section 2 (i); the information requested is followed by the reviewer's response.

SECTION 2 (i)(A)(I):

For proposed facilities which do not meet the location for proximity to towns, schools, or any occupied dwelling house in W.S. 35-11-502(c)(i) or (ii), the applicant shall:

Present an analysis of additional traffic resulting from proposed facility and demonstration that additional traffic caused from operation of a disposal facility will not pose a safety threat to the public.

REVIEWER RESPONSE: Traffic and road development on the site and the site expansion in general will not create additional traffic at or near the facility and as such, does not pose a traffic safety threat to the public.

SECTION 2 (i)(A)(II):

The proposed facility will not present odor, dust, litter, insect, human or animal health, or aesthetic problems and will not present a public nuisance by its proximity to the town, schools and or dwellings.

REVIEWER RESPONSE: Prevailing wind direction is generally away from the Town of Sundance. Dust is not generally a problem at this facility. Facility is operated in a manner to minimize dust, odor and vector problems. The landfill expansion will be in very close proximity to a DOT rest stop and manned tourist information booth east of Sundance on I-90. Odors, vector potential and visual impacts should be considered in terms of this rest area/tourist promotion area.

SECTION 2 (i)(A)(III):

Provide design features and monitoring specifications used to preclude methane

migration from affecting any buildings within one (1) mile of the proposed facility, if the facility is used for the disposal of wastes which may form methane as a decomposition product.

REVIEWER RESPONSE: At this time, the department is not proposing to require methane monitoring along any boundary of the Sundance landfill including lateral expansion boundaries. However, methane monitoring will be required at this facility if any new structure is constructed within 1000 feet of any landfill boundary. During the next renewal application review, the department can further clarify whether there may be potential impacts to structures located between the lateral expansion boundary and I-90.

SECTION 2 (i) (B):

For proposed facilities which do not meet the location standard for proximity to, and visual screening from, state or federal highways in W.S. 35-11-502(c) (iii), the applicant shall provide information describing how the design and operation of the facility will minimize visual impacts to the highway(s).

REVIEWER RESPONSE: The proposed expansion of the landfill will be visible from I-90. The current landfill operation is visible from I-90 but landfill operations are not obvious due to distance and good operation practices. The working face and general operations will be much more visible with the proposed expansion. Visual impacts to the community and travelers along the I-90 corridor should be strongly considered in the variance decision.

For proposed facilities, excluding incinerators, which do not meet the location standard for proximity to water wells in W.S. 35-11-502(c)(iv), the applicant shall provide:

BACKGROUND: The Town of Sundance sent out consent forms to all land owners within one mile of the proposed landfill extension. All land owners granted consent with the exception of one who neither granted consent nor opposed the extension; this was an elderly resident whose son did not think his mother could understand the ramifications of granting consent. Two water wells are permitted within 1/2 mile of the landfill boundary. Neither well owner returned the consent forms.

(I) A detailed description of the site's geologic and hydrologic characteristics, supported by data from on-site soil borings and groundwater monitoring wells;

REVIEWER RESPONSE: Geotechnical studies at the Sundance landfill located a ground water table below the waste disposal area that appears to be connected to the ephemeral stream that flows along the west boundary of the existing landfill and the proposed expansion. An upgradient well is not yet approved by the Department for use in monitoring. Ground water monitoring will be conducted at this site.

(II) A detailed description of the proposed facility's containment system (cap and liner systems) and surface water diversion systems;

REVIEWER COMMENT: A cap and liner system is not required at this site at this time. Permanent surface water diversion is planned around the site perimeter and temporary surface water diversion is planned for each working trench. This information is contained in the variance application.

(III) A detailed description of the groundwater monitoring program (including location of wells, sampling frequency and sampling parameters) which

would be instituted when the facility begins operations; and

REVIEWER RESPONSE: The variance application submitted by Sundance recommends monitoring of static water levels but does not recommend ground water testing. The Department will require the Town of Sundance to conduct ground water monitoring per Solid Waste Management Chapter II requirements for baseline and routine monitoring to begin once an upgradient well has been approved.

(IV) An analysis of the potential for contaminants which may leak from the disposal facility to adversely affect the nearby water well(s). This analysis may be in the form of contaminant transport modeling results, an evaluation of hydrologic conditions or aquifer properties, or other applicable information.

REVIEWER RESPONSE: See page 9. Ground water monitoring at this site will detect leakage of possible contaminants off site.

SECTION 2 (i) (D):

In addition to other information requested in this subsection, all variance applications made under this subsection shall be accompanied by the following information:

(I) The proposed size of the facility

REVIEWER RESPONSE: The size of the facility is approximately 63 acres which includes both the existing permitted facility and the proposed extension.

(II) The name, address and telephone number of the applicant

REVIEWER RESPONSE: See page 9. The applicant information is complete and technically adequate.

(III) The legal description of the property

REVIEWER RESPONSE: See page 10. Legal description of waste disposal area is complete and technically adequate.

(IV) A detailed description of the facility which includes information on the amount, rate (tons per day), type (including chemical analyses if other than household refuse) and source of incoming wastes, a narrative describing the facility operating procedures, and the estimated site capacity and site life;

REVIEWER RESPONSE: See page 11. The landfill receives approximately 2.63 TPD of municipal waste. Although it is not mentioned in the variance application, this facility will be permitted to treat petroleum contaminated soils. Waste sources include the City of Sundance, Vista West housing development and surrounding county residents, and Forest Service campground waste. The capacity/site life for the existing permitted boundary is 123,205 cubic yards, estimated to provide waste disposal capacity for 28 years. The proposed expansion has a capacity of 140,479 cubic yards estimated to provide additional site life of 32 years.

(V) The names and addresses of the property owners of all lands within one mile of the proposed facility.

REVIEWER RESPONSE: A list of land owners within one-mile of the boundary is supplied in the variance application.

(VI) A USGS topographic map (scale of 1:24,000 or 1:62,500) which shows the boundaries of the proposed landfill site, and;

REVIEWER RESPONSE: A 1:24,000 scale USGS topographic map depicting the boundaries of the proposed disposal site.

(VII) Information sufficient to evaluate the conditions specified in paragraph (i)(ii) of this section.

(ii) In granting a variance as provided by this paragraph, the council shall issue written findings that the variance will not injure or threaten to injure the public health, safety, or welfare. The council shall only make such a finding if the evidence presented in the application and the public hearing demonstrates that:

(A) There are no available alternative locations which meet the location standards for a solid waste management disposal facility to meet the disposal needs of the applicant, within a reasonable distance of the boundary of the service area of the facility; and

REVIEWER RESPONSE: The application states that it is not economically feasible for the Town of Sundance to procure land for an alternative site for this facility. No permitted solid waste disposal facility is within a distance that would be economically feasible to transport wastes for disposal.

(B) It is not possible for the applicant to use existing, permitted solid waste disposal management disposal facilities owned by another person within a reasonable distance of the boundary of the service area of the facility.

REVIEWER RESPONSE: There is no waste disposal facility located within a reasonable distance that can provide waste disposal services to the Town of Sundance.

(C) Special or unique conditions or circumstances apply to the applicant and justify granting the variance.

REVIEWER RESPONSE: The proposed landfill extension is located adjacent to the existing landfill and the sewage lagoons. The proposed facility constitutes logical development of the site and will provide waste management capacity for 60 years. The location of the proposed facility limits impacts from waste disposal to an area already aesthetically impacted by disposal practices.

cc: File # 10.580