

Technical Reviewers' Rating Summary

Proposal Number	G-025-01
Application Title	Investigation of Methodologies to Vontrol Dust on County Roads in Western North Dakota
Submitted By	Dunn and Mckenzie County
Request For	\$220,000.00
Total Project Costs	\$440,000.00

Section A. Scoring

Statement	Weight	G-025-A4	G-025-A5	G-025-A6	Avg. Score
1. Objectives	9	3	4	3	30
2. Achievability	7	4	2	4	23
3. Methodology	8	3	2	3	21
4. Contribution	8	3	2	5	26
5. Awareness / Background	5	3	1	5	15
6. Project Management	3	3	1	3	7
7. Equipment / Facilities	2	3	2	3	5
8. Value / Industry - Budget	4	3	2	5	13
9. Financial Match - Budget	4	4	4	3	14
Avg. Weighted Score		161	118	191	156
OVERALL					
FUND				X	
TO BE CONSIDERED		X			
DO NOT FUND			X		

Section B. Ratings and Comments

1. The objectives or goals of the proposed project with respect to clarity and consistency with North Dakota Industrial Commission/Oil and Gas Research Council goals are:

“The proposed project looks at different products and processes to control dust. Don't know how much dust control will be accomplished by putting fabric below the gravel. Fabric, and soil stabilizers seem to be the main focus. This could be useful to counties but seems expensive and labor and time consuming to apply.”

- Reviewer: G-025-A4

- Rating: 3 (Clear)

“An unstable road bed will cause any surface dust control treatment to be less effective as the road will develop soft spots and “blowouts”. Loose aggregate quickly becomes airborne dust. One of the concerns of McKenzie County in particular is the silt based roads they have in parts of the County. These roads are not stable under the types of loads and the volumes of traffic they experience. Other roads may have soft wet spots where wetlands are nearby or groundwater seeps occur. Stabilization of these roads with fabric or soil treatment or both may reduce the maintenance costs and the dust they generate.”

- Applicant

“The objective of finding a better, more stable and more maintenance free method of dust control is very clearly stated. Whether this can be achieved, based on the information in the proposal, is not so clear.”

- Reviewer: G-025-A5

- Rating: 4 (Very Clear)

“An unstable road bed will cause any surface dust control treatment to be less effective as the road will develop soft spots and “blowouts”. Loose aggregate quickly becomes airborne dust. One of the concerns of McKenzie County in particular is the silt based roads they have in parts of the County. These roads are not stable under the types of loads and the volumes of traffic they experience. Other roads may have soft wet spots where wetlands are nearby or groundwater seeps occur. Stabilization of these roads with fabric or soil treatment or both may reduce the maintenance costs and the dust they generate.”

- Applicant

“Gravel road maintenance is a problem for industry, local government, and the public. It is one of the most objectionable things brought on by oil development, complained by the public. This proposal very clearly seeks to improve the overall suitability of the oil and gas industry in ND by evaluating the most effective maintenance and dust control methods.”

- Reviewer: G-025-A6

- Rating: 3 (Clear)

“An unstable road bed will cause any surface dust control treatment to be less effective as the road will develop soft spots and “blowouts”. Loose aggregate quickly becomes airborne dust. One of the concerns of McKenzie County in particular is the silt based roads they have in parts of the County. These roads are not stable under the types of loads and the volumes of traffic they experience. Other roads may have soft wet spots where wetlands are nearby or groundwater seeps occur. Stabilization of these roads with fabric or soil treatment or both may reduce the maintenance costs and the dust they generate.”

- Applicant

2. With the approach suggested and time and budget available, the objectives are:

“The time frame seems reasonable.”

- Reviewer: G-025-A4

- Rating: 4 (Most Likely Achievable)

“The costs will be tracked by the Counties and the effectiveness will be evaluated by the Counties. They can use the information developed from this study to determine which methodologies to use based on site conditions, materials and traffic volumes. A low traffic volume road may not warrant as much treatment as a high traffic volume road. However, a road with poor site conditions may require more treatment regardless of traffic volumes. Project costs are based on information from suppliers and the Counties.”

- Applicant

“The timeline for monitoring and evaluation only covers summer and fall. Would not test sections have to be evaluated after going through all four seasons to better determine how they hold up? It is not clear in the proposal as to how many miles of test sections are to be completed nor which treatment technology is to be tested, so unsure if budget is enough or not.”

- Reviewer: G-025-A5

- Rating: 2 (Possibly Achievable)

“The costs will be tracked by the Counties and the effectiveness will be evaluated by the Counties. They can use the information developed from this study to determine which methodologies to use based on site conditions, materials and traffic volumes. A low traffic volume road may not warrant as much treatment as a high traffic volume road. However, a road with poor site conditions may require more treatment regardless of traffic volumes. Project costs are based on information from suppliers and the Counties.”

- Applicant

“Even with the poor weather conditions for construction common for the past few years, there should be adequate time for this project.”

- Reviewer: G-025-A6

- Rating: 4 (Most Likely Achievable)

“The costs will be tracked by the Counties and the effectiveness will be evaluated by the Counties. They can use the information developed from this study to determine which methodologies to use based on site conditions, materials and traffic volumes. A low traffic volume road may not warrant as much treatment as a high traffic volume road. However, a road with poor site conditions may require more treatment regardless of traffic volumes. Project costs are based on information from suppliers and the Counties.”

- Applicant

3. The quality of the methodology displayed in the proposal is:

“The methodology is about average. Placing fabric and soil stabilizers is not new science however is probably new in the dust control area.”

- Reviewer: G-025-A4

- Rating: 3 (Average)

“The proposal is general in nature and specific test segments and treatment methodologies have not been delineated. The plan is to meet with each County this fall and winter to review proposed road projects and trouble spots and develop a plan for each road segment that best matches the site conditions and proposed treatment technologies. The identified sites will be provided in an interim report to the Council. ”

- Applicant

“I believe the methodology is too general in nature to be able to determine if the objective can be met. More detail as to miles of road, road type, and type of treatment on test segment would be beneficial. Also, it would be beneficial to know what cost/benefit ratio is acceptable and what is not.”

- Reviewer: G-025-A5

- Rating: 2 (Below Average)

“The proposal is general in nature and specific test segments and treatment methodologies have not been delineated. The plan is to meet with each County this fall and winter to review proposed road projects and trouble spots and develop a plan for each road segment that best matches the site conditions and proposed treatment technologies. The identified sites will be provided in an interim report to the Council. ”

- Applicant

“A well thought out plan. My only suggestion would be to add erionite fiber air monitoring in Dunn County, but that would substantially increase the cost and complexity of the project.”

- Reviewer: G-025-A6

- Rating: 3 (Average)

“The proposal is general in nature and specific test segments and treatment methodologies have not been delineated. The plan is to meet with each County this fall and winter to review proposed road projects and trouble spots and develop a plan for each road segment that best matches the site conditions and proposed treatment technologies. The identified sites will be provided in an interim report to the Council. ”

- Applicant

4. The scientific and/or technical contribution of the proposed work to specifically address North Dakota Industrial Commission/Oil and Gas Research Council goals will likely be:
- “If a cost effective approach is found to control dust in the NW it would benifet many.”**
- *Reviewer: G-025-A4*
- *Rating: 3 (Significant)*
“Documentation of the costs and effectiveness of different dust control strategies will be beneficial to all counties in oil country and in North Dakota.”
- *Applicant*
“I say small only because of concerns expressed in earlier comments. Since the proposal, in my opinion, is stated in too general of terms, I cannot determine any significant contribution.”
- *Reviewer: G-025-A5*
- *Rating: 2 (Small)*
“Documentation of the costs and effectiveness of different dust control strategies will be beneficial to all counties in oil country and in North Dakota.”
- *Applicant*
“Even though only one of the stated priorities of the OGRC is related to improving environmental practices and overall suitability of the industry, this proposal addresses one of the most significant objections to oil and gas development. It has the potential to help affected counties reduce exposure to erionite fibers, a proven carcinogen. Even though the health risk of erionite has not been quantified, it is undoubtedly better to have less dust exposure in the affected areas, and this project may help with that. Counties not affected by erionite will benefit as well.”
- *Reviewer: G-025-A6*
- *Rating: 5 (Extremely Significant)*
“Documentation of the costs and effectiveness of different dust control strategies will be beneficial to all counties in oil country and in North Dakota.”
- *Applicant*
5. The background of the principal investigator and the awareness of current research activity and published literature as evidenced by literature referenced and its interpretation and by the reference to unpublished research related to the proposal is:
- “Nothing new in the proposal. They listed the products and processes that were used presently to contol dust.”**
- *Reviewer: G-025-A4*
- *Rating: 3 (Adequate)*
“Product information and control technology is being researched and reviewed continuously. New products will be considered and evaluated as they become available.”
- *Applicant*
“Principal investigator appears to have a very solid background. However, no reference is made or detail given as to published or unpublished research that forms a background for this study.”
- *Reviewer: G-025-A5*
- *Rating: 1 (Very Limited)*
“Product information and control technology is being researched and reviewed continuously. New products will be considered and evaluated as they become available.”
- *Applicant*
“Mr. Schwindt’s background as chief of the ND Health Department, Environmental Health Section provides exceptional experience in air quality issues, which are a significant part of this project.”
- *Reviewer: G-025-A6*
- *Rating: 5 (Exceptional)*
“Product information and control technology is being researched and reviewed continuously. New products will be considered and evaluated as they become available.”
- *Applicant*

6. The project management plan, including a well-defined milestone chart, schedule, financial plan, and plan for communications among the investigators and subcontractors, if any, is:
- “Costs and completion dates were given as well as the evaluation team.”**
- *Reviewer: G-025-A4*
- *Rating: 3 (Adequate)*
“No comment”
- *Applicant*
“As stated above, the project description is very general in nature. I cannot determine what the milestones are, miles and types of test segments, whether the financial plan is adequate or how the results will be evaluated.”
- *Reviewer: G-025-A5*
- *Rating: 1 (Very Inadequate)*
“No comment”
- *Applicant*
“”
- *Reviewer: G-025-A6*
- *Rating: 3 (Adequate)*
“No comment”
- *Applicant*
7. The proposed purchase of equipment and the facilities available is:
- “cost listed included materials and evaluation of test sections. Quantities of the materials was not listed.”**
- *Reviewer: G-025-A4*
- *Rating: 3 (Justified)*
“The study does not include the purchase of equipment. We will purchase treatment chemicals and fabric. We will use County equipment and personnel to install and apply the treatment technologies.”
- *Applicant*
“Again, with no details of miles to be tested, which segments or which treatment technologies are to be tested, I cannot determine if the budget is justified.”
- *Reviewer: G-025-A5*
- *Rating: 2 (Poorly Justified)*
“The study does not include the purchase of equipment. We will purchase treatment chemicals and fabric. We will use County equipment and personnel to install and apply the treatment technologies.”
- *Applicant*
“Though not of a technical nature, the materials proposed for purchase are necessary for the success of the project objectives.”
- *Reviewer: G-025-A6*
- *Rating: 3 (Justified)*
“The study does not include the purchase of equipment. We will purchase treatment chemicals and fabric. We will use County equipment and personnel to install and apply the treatment technologies.”
- *Applicant*

8. The proposed budget “value”¹ relative to the outlined work and the commitment from other sources is of:

“Not very detailed. Quantities and hours required were not listed.”

- Reviewer: G-025-A4

- Rating: 3 (Average Value)

“The addition of erionite fiber monitoring would be a good addition to the study, but the costs would increase significantly. It would require additional subcontractors for monitoring and testing as the Counties and principal investigator do not have that capability.”

- Applicant

“Not enough detail to determine if it is adequate.”

- Reviewer: G-025-A5

- Rating: 2 (Low Value)

“The addition of erionite fiber monitoring would be a good addition to the study, but the costs would increase significantly. It would require additional subcontractors for monitoring and testing as the Counties and principal investigator do not have that capability.”

- Applicant

“In 2009, EPA had proposed to do a dust control evaluation project in Dunn County in response to erionite concerns. The cost was given as “up to two million dollars”, though the number of road miles was not determined. The project was not approved by EPA headquarters because of budget shortfalls and other reasons. This project does not include erionite fiber monitoring along the roadways, however it does appear to be of exceptionally good value, when compared to the EPA project.”

- Reviewer: G-025-A6

- Rating: 5 (Very High Value)

“The addition of erionite fiber monitoring would be a good addition to the study, but the costs would increase significantly. It would require additional subcontractors for monitoring and testing as the Counties and principal investigator do not have that capability.”

- Applicant

9. The “financial commitment”² from other sources in terms of “match funding” have been identified:

“Listed the entities where funding was available.”

- Reviewer: G-025-A4

- Rating: 4 (High Value)

“The Counties were very interested in participating in this study. Although the required match was provided by the Counties, we will pursue other contributions from interested parties. Dust along county roads is a significant problem and there are many people interested in finding cost effective solutions.”

- Applicant

“High value because 50% is coming from other sources. However, it is hard to determine if that is adequate.”

- Reviewer: G-025-A5

- Rating: 4 (High Value)

“The Counties were very interested in participating in this study. Although the required match was provided by the Counties, we will pursue other contributions from interested parties. Dust along county roads is a significant problem and there are many people interested in finding cost effective solutions.”

- Applicant

“Meets the minimum 50% cost share. The proposal does state that there will be contributions from equipment and product suppliers and interested oil companies, which is positive, however the match will still only be the minimum 50%. ”

- Reviewer: G-025-A6

- Rating: 3 (Average Value)

“The Counties were very interested in participating in this study. Although the required match was provided by the Counties, we will pursue other contributions from interested parties. Dust along county roads is a significant problem and there are many people interested in finding cost effective solutions.”

- Applicant

General Comments

“More up front work would be beneficial to compare cost of the proposals listed and the cost the counties are experiencing now.”

- Reviewer: G-025-A4

“The objective of the proposal is extremely important. It is critical to find a better solution to this dust problem. Perhaps a little more planning of this project should be done before it is funded. A better defined proposal would help justify this project. It would be better to identify the test sections, how many miles of each, and the treatment technologies and then submit a proposal. The general nature of this submission makes it very difficult to determine its effectiveness.”

- Reviewer: G-025-A5

“In general, a project that meets a significant need in oil country, which should also receive very favorable reception by the public.”

- Reviewer: G-025-A6

1 “value” – The value of the projected work and technical outcome for the budgeted amount of the project, based on your estimate of what the work might cost in research settings with which you are familiar. A commitment of support from industry partners equates to a higher value.

2 “financial commitment” from other sources – A minimum of 50% of the total project must come from other sources to meet the program guidelines. Support less than 50% from Industrial Commission sources should be evaluated as favorable to the application; industry partnerships equates to increased favorability.