

Approved:

  
Brad Jones, P.E.  
Deputy Director  
Division of Construction Management

Standard Procedure: 515-001 (SP)  
Effective Date: November 10, 2015  
Responsible Division: Construction  
Management  
Supersedes Standard Procedure Dated  
September 12, 2005

## NEW PRODUCT DEVELOPMENT

### PROCEDURAL STATEMENT:

This standard procedure sets forth the process by which New Products, introduced to the Department, will be evaluated and approved/disapproved for use.

### AUTHORITY:

*Ohio Revised Code Statutes 5501.03*  
*Code of Federal Regulations 23CFR635.411*

### REFERENCES:

Policy 27-014(P), New Product Development  
Standard Procedure 510-005(SP), Construction and Material Specification

### SCOPE:

This policy is applicable to Central Office Divisions and District Departments involved in planning, production, construction, and operation of our highway system.

### DEFINITIONS:

Construction and Material Specifications Book (C&MS): A published bound book that contains detailed provisions, together with the plans and the proposal, constitute the contract for the performance of required work. It is the official legal and technical document by which the Department bids and constructs highway projects.

New Product: A product that does not meet an existing Department specification.

New Product Engineer (NPE): Engineer in charge of the evaluation and development of new product. This position is currently under the Office of Materials Management.

Qualified Products List/Approved Product List (QPL/APL): These are lists of products and their approval processes, conforming to items in the C&MS, maintained under the Office of Materials Management.

Proposal Note: Published proposal notes contain a wide variety of legal and technical requirements necessary for proper bidding and sale of an individual project. These notes override all other requirements in Plans, C&MS, Supplemental Specifications, and Standard Construction Drawings.

Specifications: Contract documents used to issue instructions to contractors. For the purposes of this procedure, Specifications will include: C&MS, Supplemental Specifications, Supplements, and Proposal Notes.

Specification Committees: Specification committees are working committees, formed around specific materials and construction tasks, and composed of ODOT district and central office staff, representatives from Federal Highway Administration (FHWA) and industry trade groups.

Supplemental Specifications: Individual numbered documents prepared in loose-leaf form describing the construction and material specifications for new items.

Supplements: Individual numbered documents prepared in loose-leaf form describing necessary information such as laboratory methods of test, and certification or pre-qualification procedures for materials.

Vendor: Manufacturer, company, distributor, marketing group, or individual, seeking ODOT approval of a new product.

## **PROCEDURE:**

### **I. GENERAL:**

- A. All vendor initial contact with ODOT will be directed to the Office of Materials Management, New Product Engineer, (NPE).
- B. In order to establish if a product falls under the definition of new product, all vendors will be required to determine if their product meets existing ODOT specification(s).
- C. For each new product to be considered for review by the Department, the vendor will be required to submit a New Product Application. This application can found in Appendix 1.
  1. For new products that deal with prefabricated erosion control devices, follow provisions of Appendix 2, Prefabricated Erosion Control Device – Product Evaluation Guidelines.

2. For new products that deal with fuel savings devices, additives or modifiers for fuels and lubricants, and other devices claimed to improve fleet efficiency, follow provisions of Appendix 3, Fuel Saving Devices, Additives, and Modifiers – Usage Guideline.

## II. NEW PRODUCT INITIAL REVIEW

- A. NPE will perform initial review of the new product. Review will include, but is not limited to, a literature search, verification of performance and application histories, cost comparison to current equivalent product(s), and a summation of findings.
- B. The NPE will distribute new product application and initial review of findings to appropriate Office(s) within the Department, FHWA, and possibly industry for comments as to the need, practicality, potential application, concerns, and overall level of interest in the new product.

## III. NEW PRODUCT INITIAL DECISION POINT

- A. If comments received for the new product are negative, the Department will take no further action. NPE will provide vendor with a written response of the Department's decision.
- B. If comments received for the new product are positive, NPE will form a committee to develop an evaluation plan for the new product. The committee will include key ODOT and FHWA personnel and may include industry representation.

## IV. EVALUATION PLAN

- A. An evaluation plan will be developed by committee and will document: how the new product will be evaluated, length of evaluation period, acceptance criteria the new product will be judged against, individual(s) responsible for monitoring the new product performance, and proposed site location and layout. New products may be subjected to lab testing, field testing or both. NPE will present new product and evaluation plan to appropriate Specification Committee for comment and approval.
- B. If evaluation plan includes use of product as a demonstration on a project that requires federal oversight, an Experimental Construction Feature – Work Plan will also need to be developed. Follow instructions and forms found in Appendix 4.

V. EVALUATION PLAN EXECUTED

- A. NPE will track new product evaluation and provide briefings to Specification Committee.
- B. New product evaluations may be stopped at any time if performance does not meet expectation.
- C. At termination of evaluation period, performance of the new product will be documented by NPE and reported to the Specification Committee. If the new product did not meet established performance criteria, the new product will be rejected from use by the Department. NPE will inform vendor of this decision in writing. If the new product met or exceeded performance criteria, Specification Committee will begin development of a specification. NPE will track use and performance of the new product under this supplemental specification. Modifications can be made to the specification as needed and will be approved by Specification Committee. NPE will work through the Specification Committee to either move new product to full specification status or reject from use. NPE will keep vendor informed of the status of their new product. NPE will also disseminate the results and status of the evaluation to those impacted within ODOT.

**TRAINING:**

None Required.

**FISCAL ANALYSIS:**

The operational fiscal impact of this policy is expected to include Department resources to perform product evaluations and committee members' time.

## Ohio DOT New Products Application Form

1. Date:

2. Product Name:

3. Brand/Trade Name:

4. Manufacturer:

Address:

(Street, City, State, Zip Code)

Phone:

Web Address:

5. Manufacturer Contact Person:

Address:

(Street, City, State, Zip Code)

Phone:

Email:

6. Vendor:

Address:

(Street, City, State, Zip Code)

Phone:

Web Address:

7. Vendor Contact Person:

Address:

(Street, City, State, Zip Code)

Phone:

Email:

8. Has the product been tried under another name?

If so, please describe:

9. What date did the product come onto the market?

10. Is the product patented?

Applied for date:

11. Is the product proprietary? If yes, what are the royalty costs and on what basis are they collected?

12. What is the primary use for the product?

13. List the outstanding features or benefits of the product:

14. List any alternate uses for the product:

15. This product is proposed as an alternate replacement or comparable to what existing ODOT construction or material specification? What product(s) would be direct competitor(s)?

16. List specific specifications that the product meets - AASHTO, ASTM, Federal, MUTCD, or Ohio DOT (certified test data must be submitted which support these claims):

17. Has the product been approved for use by another State DOT? If yes, please provide the following - State, contact name and number, if the product is used on a routine basis or experimentally, and copy of the DOT specification (if applicable):

18. Has the product been tried by the Ohio DOT before? If yes, please provide the following - Contact name and number, when and where the product was used, product performance, and reason(s) stating why the product should be tried again.

19. Has another Office or person in the Ohio DOT been contacted about this product? If yes, please provide the details of that contact:

20. Has this product been evaluated, or is currently being evaluated by the National Transportation Evaluation Program? If yes, please provide the report or submittal number.

21. What is the generic product composition?
22. Describe any adverse effects associated with the use of your product. Examples would include – environmental, maintenance of traffic, safety concerns, or others?
23. Can a demonstration be provided?
24. If a demonstration is deemed necessary, will your product be supplied free of charge?  
Will labor and equipment be provided to install the product free of charge?
25. Is there a need for special equipment to install your product? If yes, what is the cost to buy/rent the equipment?
26. If this product is an alternate or replacement for an existing ODOT Construction and Specification item, please provide a cost comparison with this item.
27. What is the cost of the product per unit? Make assumptions on quantities if necessary.
28. What is the cost of the product per unit - installed?
29. Can these items be provided? If yes, please provide 2 copies of this information with the submission of the application.
- | Yes   | No    |                           |
|-------|-------|---------------------------|
| _____ | _____ | Specifications            |
| _____ | _____ | MSDS data                 |
| _____ | _____ | Test data                 |
| _____ | _____ | Product literature        |
| _____ | _____ | Pictures or drawings      |
| _____ | _____ | Installation instructions |
30. Can educational courses or videos be provided?
31. Is the product seasonal?
32. Are quantities limited?
33. Product can be delivered to the site after an order is placed in \_\_\_\_\_ days?
34. Does the product carry a warranty? If yes, please describe in detail the provisions of the warranty:

**General Notes**

1. A separate form will be required for each product submitted for evaluation.
2. Incomplete applications and/or erroneous information furnished as a part of this form will result in the product being rejected for evaluation.

In the event a field and or laboratory evaluation is deemed necessary, the following conditions will apply:

3. Product evaluation will be in accordance with applicable laboratory testing and field evaluation criteria established by the ODOT staff. The evaluation shall provide a true test of the products stated characteristics and application.
4. Acceptance of a product for evaluation by the ODOT is in no way a commitment to purchase, recommend, or specify the product investigated regardless of its performance.
5. When requested by the ODOT, the vendor or their representative will be present when the product is installed at the test site to lend assistance and provide expertise to those involved in the installation. The vendor shall also provide any special equipment necessary for the installation.
6. The ODOT will prepare a summary report upon completion of a suitable evaluation period to allow adequate exposure of the product to its functional environment. Data resulting from an evaluation of the submitted product is public information and will not be considered privileged. All information developed during this product evaluation will be released by the ODOT at its discretion.

The Ohio Department of Transportation will not consider any new product until this application is completed, signed by a responsible official of the manufacturer, and returned to the address shown below. All ODOT correspondence will be directed to the official of the manufacturer listed below.

**Ohio Department of Transportation  
Office of Materials Management  
Attention: New Product Engineer  
1600 West Broad Street, Columbus, OH 43223**

**Signature:** \_\_\_\_\_  
(Official of manufacturer)

**Name:** \_\_\_\_\_  
(Please type or print)

**Date:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Manufacturer:** \_\_\_\_\_

**Address:** \_\_\_\_\_  
(Street, City, State, Zip Code)



**Prefabricated Erosion Control Devices**  
**Product Evaluation Guideline**  
Office of Materials Management  
June 25, 2014

The following references describe the Departments Construction Erosion Control Practices. These practices outline that the awarded project contractor will furnish all erosion control for the project. This will include all erosion control products, the location of those products, and if required, a Storm Water Pollution Prevention Plan. The erosion and sediment control products will meet the requirements as outlined below.

1. Standard Drawings: DM-4.1 Erosion Control at Bridges  
DM-4.2 Erosion Control Mat Type A-I  
DM-4.3 Sediment and Erosion Controls  
DM-4.4 Construction Erosion Control
2. Specifications: Supplemental Specification 832
3. Procedures: Manual of Procedures, Item 832, Temporary Sediment and Erosion Controls

The contractor may propose a new erosion or sediment control product. A product notice, as outlined below, must be submitted to the Engineer and Department at the time of the SWPPP submittal. The product must be submitted as a new product to the Office of Material Management for review prior to this evaluation or concurrent with this request. New erosion and sediment control products which involve filter fabric are required to meet ODOT 712.09 Type C, at a minimum.

The product notice shall include the following:

1. Sales brochure and test data describing the product.
2. New Product Application if not previously submitted (completed by the manufacturer). Contact New Product Engineer for a copy of this application:  
[brad.young2@dot.ohio.gov](mailto:brad.young2@dot.ohio.gov)
3. State the intended use of the product, and if applicable, the item the product will replace.
4. If the product is not a direct replacement for an existing approved product, describe how the product addresses the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit (Supplemental Specification 832).
5. Any documentation of scientific testing from a reputable independent laboratory or university showing results based on controlled conditions.
6. Description of where the product is appropriate for use and specifying design limitations for each proposed application. (I.e. This product will be used on curb inlets with 1 acre or less of tributary area.)

7. The location and all necessary installation instructions or details shall be included in the project's SWPPP.
8. Trial performance evaluation plan prepared by the contractor or their representative. State the project location(s) of the proposed trial performance evaluation(s). (At a minimum, evaluations will last three months and have weekly performance documentation.) Photo documentation of the product evaluation shall be provided on a monthly basis at a minimum.
9. List of any other projects the product has been used on. Supply a contact reference and phone number.

The Department will review the product notice. If the Department has reason that the product should not be used, the contractor will not be allowed to use the product. Otherwise, the Department will issue approval for the product to be installed in a trial performance evaluation(s). Upon completion of each trial performance evaluation, a report will be submitted to the Department by the contractor or their representative. This report will provide the following information:

1. Weekly reports of the products performance, signed by project personnel concurring with the findings.
2. Photo documentation
3. A summary of results of product, signed by project personnel concurring with findings.

The new erosion control product, installation, and maintenance can be paid for at an agreed upon price as described in SS832. If it is not replacing a current item, then payment is a part of the project as outlined in SS832. Product proposals that do not directly replace existing approved products are required to provide a project cost breakdown and description of how the application specifically applies to the NPDES Permit (Supplemental Specification 832). Weekly performance evaluations and reporting will be at no cost to ODOT.

The contractor, without additional payment, will assume all responsibility for the removal, maintenance and replacement of the new erosion control product(s) in the event that those products do not provide the controls necessary to maintain NPDES compliance.

If the new erosion control product meets or exceeds the performance of the existing standards based on several trial performance evaluations, the product can become a standard erosion control product.

The Product Notice and Trial Performance Evaluation Report should be sent to:

Brad Young, New Products Engineer  
Office of Materials Management  
1600 W. Broad St., Columbus, OH 43223  
Email: [brad.young2@dot.ohio.gov](mailto:brad.young2@dot.ohio.gov)

Hans Gucker, Const. Hydraulics Engineer  
Office of Construction Administration  
1980 W. Broad St., M.S. 5190, Columbus, OH 43223  
Email: [hans.gucker@dot.ohio.gov](mailto:hans.gucker@dot.ohio.gov)

**Fuel Saving Devices, Additives, and Modifiers – Usage Guideline**  
**Office of Equipment and Support Services**  
July 26, 2005

This guideline establishes the requirements for vendors seeking ODOT approval of their fuel saving devices, additives and modifiers for fuels and lubricants and other add on devices claimed to improve fleet efficiency and save money.

The vendors will comply with the following conditions and requirements before any consideration will be given to the product:

1. ODOT is not interested in products that invalidate equipment warranties.
2. Many of these products are covered by the Department of Administrative Services purchasing contracts and they should be contacted.
3. Submission of sales brochures and data describing the product.
4. Material Safety Data Sheets (MSDS) for all chemicals.
5. Minimum cost savings will be at least 5% above the products cost per year.
6. Documentation of results from a major fleet operation (>100 vehicles).
7. Documentation of scientific testing from a reputable laboratory or university showing results based on controlled conditions. All tests will meet applicable ASTM and/or SAE standards.

Please submit documentation and product information to:

Ohio Department of Transportation  
Office of Materials Management  
Attn: New Products Engineer  
1600 West Broad Street  
Columbus, OH 43221

## **Construction Projects Incorporating Experimental Construction Features**

### **1. What is the purpose or objective of the experimental features program?**

- a. The purpose of the experimental features program is to encourage highway agencies to evaluate new or innovative highway technology, or alternative standard technology, under actual construction and operating conditions by means of a program or experimental construction projects.
- b. To provide a mechanism for the widespread dissemination and application of the results of these evaluations.

### **2. What are some key definitions of the program?**

- a. Control Section - a section or feature of a highway designed and constructed in a standard manner and as nearly as practicable under identical conditions so that comparisons can be made.
- b. Experimental Feature - a material, process, method, equipment item, traffic operational device, or other feature that: (1) has not been sufficiently tested under actual service conditions to merit acceptance without reservation in normal highway construction, or (2) has been accepted but needs to be compared with alternative acceptable features for determining their relative merits and cost effectiveness.
- c. Experimental Project - a Federal-aid highway construction project incorporating one or more experimental features.
- d. Work Plan - a written program of action including a description of the experimental feature, experimental feature objectives, measurements to be made, characteristics to be evaluated, time schedules, reporting requirements, cost estimates, construction and post-construction inspection schedules, control sections, and evaluations to be conducted.

### **3. What are the general principles of the program?**

- a. Experimental Project Designation. Any Federal-aid project incorporating experimental features should be designated an experimental project and treated accordingly.
- b. Work plan. A work plan is required for each experimental feature.
- c. Approvals
  1. For projects on the Interstate system that incorporate experimental features or on any National Highway System (NHS) route that incorporates proprietary products, the work plans must be approved by the Division Administrator prior to or with approval

of Plans, Specifications, and Estimates (PS&E). Work plans for experimental projects utilizing State Planning and Research (SPR) funds need approval by the Division Administrator in accordance with normal approval procedures for SPR funded studies. (For NHS projects with State approval authority and oversight, work plan approval is delegated to the State.)

2. Experimental features included in ongoing projects by change order also need approval by the Division Administrator.
- d. Control Sections. Control sections or other alternatives should be provided for performance comparisons in all experimental projects unless the nature of the experiment is such that a control section or alternative would serve no purpose.
- e. Cost Data. Cost data should be compiled for all experimental and control features.
- f. Multiple Project Justification. Two or three construction projects should be adequate to conclusively evaluate a single feature. The justification for more than five construction projects should be carefully analyzed prior to initiation.

#### **4. How should the results of the experimental features program be reported?**

- a. Reporting of results should be completed for all experimental features. All reporting (including form, content, and delivery) should follow the requirements set forth in the approved work plan. Final reports prepared utilizing SPR and non-SPR funds are to be submitted for review and approval to the FHWA Division Office in accordance with the established procedures for SPR funded Research Development and Testing (RD&T) studies. Two copies of the final report should be provided to the FHWA Division Administrator. The Division Office should forward one copy to the following address:  
Mr. John McCracken, Director  
FHWA Office of Research and Technology Services  
Turner-Fairbank Highway Research Center, HRTS-1  
6300 Georgetown Pike, Room F-204  
McLean, VA 22101-2296
- b. The FHWA supports the continued use of the AASHTO Product Evaluation List (APEL). Contracting agencies should provide the appropriate experimental feature evaluation report information to the APEL web site so that other agencies may benefit from their evaluations.

**5. How are projects with experimental features terminated?**

The Division Administrator may determine the project has been completed when the work plan goals either have been achieved or cannot be achieved.

**6. How are projects with experimental features financed?**

- a. Total construction costs attributable to experimental features may be financed with the appropriate class of Federal-aid funds. SPR funds cannot be used for constructing experimental features.
- b. Evaluation costs may be financed with the same class of funds used for construction of the experimental feature, SPR funds, or non-Federal funds. If SPR funds are used, the administrative requirements in 23 CFR Part 420 are applicable.

**Ohio Department of Transportation**  
**Office of Materials Management**  
**Experimental Construction Feature - Work Plan**

**Feature to be evaluated:**

**Manufacturer:**

**Proposed location:**

**PID or Project Number:** \_\_\_\_\_ **Expected Install Date:** \_\_\_\_\_ **Estimated cost:** \$ \_\_\_\_\_

**Other Information:**

**Is Federal approval required: Yes / No (If yes, FHWA signature required below)**

**Person responsible for reporting on the features performance:**

---

**To what extent has this feature been used in Ohio? Elsewhere?**

**What potential benefits can be derived from the installation of the feature?**

**How will the feature be installed? Describe the exact location and circumstances.**

**How will the features performance be judged? Describe any standards or control sections which the feature will be compared to.**

**Preparers Name:** \_\_\_\_\_

**Office / District:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Approved / Date:** \_\_\_\_\_  
**(Specification Committee Chair)**

**Approved / Date:** \_\_\_\_\_  
**(FHWA, Ohio Division Administrator)**