



Quarterly



T³S to Host the 7th SE Local Roads Conference Sept 22–24 at the Wyndham Myrtle Beach Resort

The SC Transportation Technology Transfer Service (T³S), which is the SC LTAP Center, will host the Seventh 2002 Southeast Local Roads Conference (SELRC). The SELRC is a collaboration of the Federal Highway Administration and the southeastern LTAP Centers, which include AL, FL, GA, KY, MS, NC, PR, SC, and TN. More information regarding the conference is available at the conference web site that can be reached via the T³S web site: www.ce.clemson.edu/t3s.

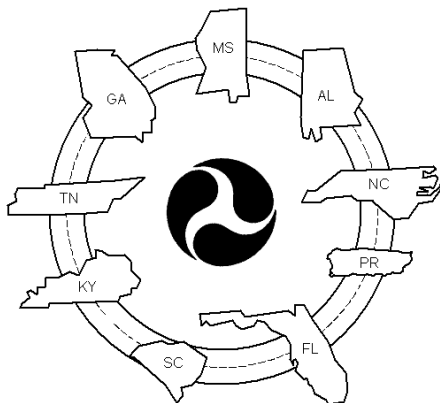
plus tax and a small resort fee.

You can make hotel reservations by calling them toll free at 1-800-996-3426, or directly at 843-449-5000. Request the Southeast Local Roads group rate. This conference room rate will be available until **August 22, 2002** or until the room block is filled.

Additional information on the hotel is available at the T³S web site. Register early for this popular conference. Each of the last two conferences, in Tennessee and Alabama, had over 200 attendees.

- Low Volume Roads.
- Technology Transfer: Learning from Others.
- Bicycle Paths.
- Highway Safety for Local Roads.
- Parking Studies for Municipal Agencies.

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Conference Location

The conference will be held at the Wyndham Myrtle Beach Resort, which is located directly on the beach, and there is an excellent conference room rate of \$65 per night,

Conference Agenda

The tentative agenda for the Conference includes a wide array of presentations on local roads topics that will be of interest to city, county, and DOT personnel, as well as local elected officials and private sector employees. There will be two parallel sessions to allow participants a choice of topics. Some of the sessions and topics that are planned for the conference include:

- Solutions for Residential Speeding Problems.
- ITS Applications for Local Roads.

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- Traffic Impact Ordinances.
- Safety, including Local Roads, Intersections, and Highway Rail Crossings.
- GPS and GIS Technology for Road Management
- Transportation Issues of the Transportation Disadvantaged.
- Applications of Rubberized Asphalt for Local Roads.
- Geosynthetics in Gravel Roads.
- Full-Depth Reclamation with Soil Cement.
- Computer Based Training

For more information:

call: 1-888-414-3069

or visit:

www.ce.clemson.edu/t3s.

Conference Registration

The conference registration fee is \$125 till August 22, 2002, and then \$150 after that date. The registration fee includes entrance to all technical sessions, the vendor exhibit area, a Sunday evening welcome reception, continental breakfast Monday and Tuesday, and a

Monday luncheon. Depending upon interest, a golf outing is also tentatively planned for Sunday the 22nd for an additional fee.

You can register for the conference by visiting the T³S web site, or by contacting Debbie Lipscomb by phone at 888-414-3069 or by e-mail at dragon@clemson.edu. Please visit the T³S web site often for updated conference information.

The SELRC is an excellent opportunity for all municipal and county roads personnel to obtain up-to-date information on a number of important topics relating to local roads. Please plan to attend this important conference.

Drivers:

See your way clearly at night

If you must drive at night, give your eyes time to adjust to the darkness before you get behind the wheel.

Sometime after age 20, we gradually begin to lose night vision. The older we get, the more light we need to see objects. Further, as we age, our eyes need more time to adjust to light and dark.

Natural vision limitations are just one aspect of seeing clearly at night. Glare is another. You can reduce glare by cleaning the windshield, mirrors, and your eyeglasses regularly. Adjust your headlight beams to help reduce eye strain.

Drunk or drug-impaired drivers are another night-driving hazard, especially on Friday and Saturday nights. The Federal Motor Carrier Safety Administration (FMCSA) says these impaired drivers are a major risk. In fatal crashes, 30 percent of drivers in the private vehicle had used alcohol, while less than 2 percent of the commercial drivers involved had used alcohol.

Erratic driving is the key to identifying a dangerous situation. When you see a car weaving, accelerating and decelerating, crossing the center line, or drifting onto the shoulder, you know the driver is sleepy or under the influence of something. Drop back and stay away.

Getting regular eye exams is just one way to keep physically fit for driving the big rigs. Eating right, getting exercise, and sleeping well completes the picture.

Upcoming T³S Workshops

Unpaved Roads Maintenance

Aug. 13 – Charleston

Aug. 14 – Columbia

Disaster Preparedness

Oct. 16 – Charleston

Oct. 17 – Columbia

Use of Herbicides for Roadside Vegetation Management

Nov. 12 – Columbia

Nov. 13 – Charleston

OSHA Requirements for Public Works

Nov. 19 – Columbia

Nov. 21 – Charleston

Asphalt Pavement Construction and Materials

Dec. – 3 Charleston

Dec. – 4 Columbia

NPDES II Rule Changes Will Impact Many Municipalities

Editor's Note: This article is reprinted, with permission, from Road Business, Summer 2002

The National Pollutant Discharge Elimination System, Phase II (NPDES II) regulations consist of three sets of rules:

- Industrial Activities.
- Regulated Municipal Separate Storm Sewer Systems (MS4s).
- Construction Activities.

Industrial Activities

NPDES II covers municipal garages, truck and vehicle washing, salt and sand storage, recycling centers, refuse transfer stations, and wastewater treatment plants. Municipalities will need a permit or a No Exposure Certification for each activity where stormwater flows into surface waters. To obtain a certification, a municipality must show that materials "are not exposed to storm water" during storage or handling operations. To get a permit will likely require a commitment to achieve a No Exposure Certification. The deadline for applications is March 10, 2003.

The "NPDES II and Highway Garage Complexes" article (Page 4) describes what cities and towns must do to comply with these rules for

- Vehicle maintenance, repair, and lubrication.
- Painting.
- Fueling.
- Salt and sand/salt storage.
- Vehicle, equipment, and materials storage.
- Waste storage.
- Equipment and vehicle washing.

Some municipalities will have to construct new or modify existing facilities. Many will have to establish a number of management practices.

Regulated MS4s

An MS4, or "municipal separate storm sewer system," is a road drainage system owned by a municipality: NPDES II regulates all MS4s located in "urbanized areas" (UAs) as defined by the Bureau of the Census. EPA has designated more cities and towns as MS4s and has also expanded areas in previously designated MS4s. Each regulated MS4 will have to develop a Storm Water Management Program (SWMP).

That program must contain six "minimum control measures." Each is summarized below.

1. **Public Education and Outreach.** Inform citizens about the impacts polluted storm water runoff can have on water quality.
2. **Public Participation/Involvement.** Encourage citizen participation in program development and implementation.
3. **Illicit Discharge Detection and Elimination.** Develop and implement a plan to detect and eliminate illicit discharges to the storm sewer system.
4. **Construction Site Runoff Control.** Develop, implement, and enforce an erosion and sediment control program for construction activities that disturb one or more acres of land.

5. Post-Construction Runoff

Control. Develop, implement, and enforce a program to address discharges from new development and redevelopment areas.

6. Pollution Prevention/Good

Housekeeping. Develop and implement a program to prevent and reduce pollutant runoff from municipal operations.

Construction Activities

Operators of a construction site must obtain a permit if they disturb one or more acres of land. If part of a larger development, areas less than one acre are also regulated. The "construction site operator" is the party or parties with operational control of plans and specifications or of day-to-day activities. (See EPA Fact Sheet 3.0, below).

If a municipality is a construction operator, it must obtain a permit. Construction activity does not include routine maintenance of roads and ditches.

As noted above, regulated MS4 municipalities must control construction site and post-construction site runoff. Their planning regulations should require construction operators to obtain permits. Their regulations should also address post-construction discharges.

Source:

EPA Fact Sheet 3.0:

www.epa.gov/npdes/pubs/fact3-0.pdf

NPDES II and Highway Garage Complexes

Application Deadline: March 10, 2003

Editor's Note: This article is reprinted, with permission, from Road Business, Summer 2002

What Is Regulated

The National Pollutant Discharge Elimination System, Phase II (NPDES II) application date is March 10, 2003. It regulates rain, ice, and snow runoff to surface waters, whether over ground or through a storm water drainage system. Municipalities must comply for their highway garage complexes, refuse transfer stations, and wastewater treatment plants. Many cities and towns will have to construct or modify structures, and establish certain practices.

Highway garage complexes include buildings, facilities, and areas in which the following occur:

- Vehicle maintenance, repair, and lubrication.
- Painting.
- Fueling.
- Salt and sand/salt storage.
- Vehicle, equipment, and materials storage.
- Waste storage.
- Equipment and vehicle washing.

City/town officials must assess storm water flow throughout the complex. If storm water flows to a surface water, NPDES II applies. This article describes the needed facilities and practices for highway garage complexes. Municipalities must have them in place by March 10, 2003 to qualify for No Exposure Certification. If not, they must prepare a Stormwater Pollution Prevention Plan (SWPPP). As will be

seen below, a SWPPP is far more expensive than No Exposure Certification.

No Exposure Certification

To qualify for No Exposure a municipality must prevent materials and activities from exposure to stormwater that flows to surface waters. One option is to relocate materials and activities to places with flow into the ground. Protection from exposure is the other.

The surest protection is in roofed and walled buildings. Roof only structures suffice where storm water does not flow through the structure. Fueling, for example, should be under a roofed structure with berms to deflect water runoff.

Drums, barrels, and tanks with taps or valves must be sheltered. Other containers can be stored outside shelters if tightly sealed. Equipment and vehicles must be sheltered if they leak or are otherwise a contamination source. No exposure certification might also require:

- Providing temporary covers over potential contaminants, such as compost piles.
- Removing particulate matter or visible deposits from roof stacks and/or vents.
- Washing pollutants from equipment and vehicles, and treating the wash water.
- Sweeping or covering materials that might become windblown contaminants.
- Repairing pipes that leak con-

taminants.

- Removing past contamination sources.
- Storing trash in covered containers without leaks.

Stormwater Pollution Prevention Plan (SWPPP)

If exposure exists after March 10, 2003, a municipality must determine pollution sources and plan to eliminate them. The SWPPP has four elements:

1. Designate a Pollution Prevention Team.
2. Assess potential storm water pollution sources.
3. Establish management practices and controls.
4. Evaluate plan effectiveness periodically.

Pollution Prevention Team. A city or town must establish a team to develop the plan. Teams should have experts who know the regulations and employees who know the facility. A municipality can hire private engineers and other specialists as team members.

Potential Pollution Sources.

Teams must identify everything that might pollute storm water runoff. They must prepare a site map that shows the pattern of storm water drainage, drainage system elements, and surface water bodies. They must also identify discharge locations and types, and the pollutants likely to be in them.

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The team must also evaluate exposure to rainfall and runoff of the following:

- Fueling operations and storage.
- Vehicle and equipment maintenance and cleaning.
- Material storage and processing.
- Loading and unloading operations.
- Waste disposal practices.
- Team members must evaluate the pollution potential of these areas.
- Determine potential pollution from other outdoor activities and dust or particulate generating processes.
- Measure and analyze storm water discharge quality and quantity.
- Test or evaluate for non-stormwater discharges, such as vehicle wash water.

Management Practices. The team must evaluate required pollution prevention practices.

- Maintaining a clean and orderly

facility.

- Minimizing exposure of potential pollutants.
- Spill prevention and response procedures.
- Erosion prevention and sediment control.
- Runoff management, which might include vegetative swales, collection and reuse of storm water, inlet controls, snow management, infiltration devices, and detention or retention basins.
- Minimizing tracking and blowing of waste materials, sediment, and dust.

Plan Effectiveness Evaluation.

The city or town must ensure future plan effectiveness and regulation compliance. This includes following the procedures described above, employee training, and routine inspections.

Quarterly, municipal employees or consultants must inspect discharges from each outfall. At least annually they must conduct a comprehensive compliance inspection. Inspectors must have the knowledge and skills to assess impacts on storm water

quality. The municipality must correct deficiencies and submit a report to EPA.

Recommendations

It is recommends that:

- Municipalities qualify for No Exposure Certification.
- Cities and towns hire or engage professional experts to assess their highway garage complexes for compliance with all federal and state environmental rules.
- These experts prepare NPDES II and other applications.
- Road managers are involved in the assessment, applications, and permit execution.

Sources:

EPA Fact Sheet 4.0:

www.epa.gov/npdes/pubs/fact4-0.pdf

Federal Register/Vol. 65, No.210/Oct 30, 2000 (pp 64761-66, 64812-16, 64840-41, and 64877-80):

www.epa.gov/npdes/pubs/msgp2000-final.pdf

National ID for Truck Drivers

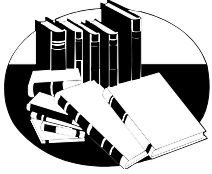
A national identification system for truck drivers is coming soon, driven by the need for more scrutiny of commercial shipments within the U.S. and from outside. Workers at airports, railroads, docks, and warehouses might be next.

Unions are challenging use of FBI checks, which they say give too much information that is no longer pertinent and could result in the possible firing of workers based on crimes that took place many years ago, according to *The Wall Street Journal*.

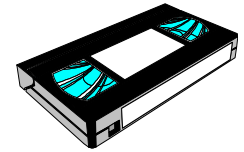
More Trucks Crash at Night

The National Highway Safety Commission says many fatal truck crashes occur between midnight and 6 a.m. If you must drive at night:

- Get plenty of rest before you start.
- Stop every two hours for light exercise and splash water on your face.
- If you are drowsy within an hour of your destination, have coffee, turn up the music, talk on your CB, or open the windows for short-term relief.
- If you are several hours from your destination, pull over for a 20 to 30 minute nap.



Publications and Videotapes Available



The Transportation Technology Transfer Service maintains a videotape library of approximately 300 tapes covering transportation and other related topics. These videos are available free for loan to individuals employed by any city, county, or state government agency in South Carolina.

You can view the catalog of tapes on-line at our web site, www.ce.clemson.edu/t3s, or you can order a copy of the catalog by calling our office. To order videotapes, or any of our other publications, you can either complete the form on page 7 of this newsletter, and fax it to us, or you can call our office toll-free at 888-414-3069.

Publications

Dust Control on Low Volume Roads: A Review of Techniques and Chemicals Used. *FHWA-LT-01-002*

Traffic Calming; State of the Practice. *FHWA-RD-99-135*

Dust Palliative Selection and Application Guide. *USDA Forest Service Engineering*

The following publications can be accessed electronically at the ITS Electronic Document Library (EDL). Visit their website at www.its.dot.gov/welcome.htm

If you are unable to obtain the document electronically, please contact our office and we will print it and send it to you.

4th Integrated Transportation Management Systems (1) Conference Proceedings (2) White Papers. *EDL Document Number 13582*

International Conference on High Occupancy Vehicle Systems (Compendium of Technical Papers). *EDL Document Number 13482*

International Conference on High Occupancy Vehicle Systems (Conference Proceedings). *EDL Document Number 13481*

Rural ITS Solutions. *EDL Document Number 13477*

Videotapes

Making the Effort Works: Reducing Utility Delays During Construction: Describes the relationship between DOT's and utility companies. The video outlines pre-planning, design, and the importance of subsurface utility engineering. Finally, it offers strategies to increase productivity by using coordination, cooperation and communication in construction projects. *FHWA/AASHTO*

Maintaining the Ditch and Surface Cross Drains: Provides comprehensive instructions for correctly constructing and maintaining ditches, culverts and various surface cross drains. *USDA Forest Service Engineering*

Reading Beyond the Traveled Way: Considers the natural functions happening beyond the roadway (rain, erosion) and how to use that knowledge before beginning maintenance operations to help minimize significant impacts on the road. Covers gullies, cracks and slumps, roadside ditches, ditch relief culverts, live stream culverts, and brush removal. *USDA Forest Service Engineering*

Reading the Traveled Way: Focuses on understanding what the condition of the road is and provides insights on how to proactively avoid costly repairs by properly addressing the road in its current condition. Shows rutting, washboarding, potholes, destroyed road template, cracks, flour, loss of surfacing, excessive vegetation, water bypassing surface cross drains, damaged or filled cattle guards, damage to bridges and damage to fords. *USDA Forest Service*

Forest Roads and the Environment: Provides an introduction to the maintenance of low volume roads, highlighting issues that benefit from proper maintenance activities, such as water temperature, fish habitat and aggregate surfacing loss. *USDA Forest Service Engineering*

Smoothing and Reshaping the Traveled Way: Covers detailed step-by-step processes used for both smoothing and reshaping a road. Covers crowned, insloped and outsloped roads as well as transition sections. *USDA Forest Service Engineering*

Information Request and Address Change Form

To order any of the publications, videos, or other materials listed on our web site or in any issue of *T³S Quarterly*, complete this form and mail it or fax it to **Debbie Lipscomb** at the address or phone number shown below.

**Transportation Technology Transfer Service
Civil Engineering Department
Clemson University, Box 340911
Clemson, SC 29634-0911**

**Phone: 888.414.3069 (toll free)
864.656.1456
Fax: 864.656.2670**

Videos

- Making the Effort Works
- Maintaining the Ditch and Surface Cross Drains
- Reading Beyond the Traveled Way
- Forest Roads and the Environment
- Smoothing and Reshaping the Traveled Way
- Reading the Traveled Way

Publications

- Dust Control on Low Volume Roads
- Traffic Calming: State of the Practice
- Dust Palliative Selection and Application
- 4th Integrated Transportation Management Systems Conference
- International Conference on High Occupancy Vehicle Systems (Compendium of Technical Papers)
- International Conference on High Occupancy Vehicle Systems (Conference Proceedings)
- Rural ITS Solutions

Other

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Suggestions for Possible Future Workshop Topics

SPEED BUMP

Dave Coverly



T³S Quarterly is published by the South Carolina Transportation Technology Transfer Service (T³S) for the benefit of county and municipal government agency personnel in SC. T³S, administered by the Clemson University Civil Engineering Department, is the Local Technical Assistance Program (LTAP) center for SC. T³S is part of a nation-wide network of LTAP centers established by the Federal Highway Administration (FHWA) in cooperation with state transportation agencies. T³S is jointly funded by FHWA and the SCDOT. The views, opinions, and recommendations contained in the newsletter do not necessarily reflect the views of the FHWA or the SCDOT.

How to Contact Us

**SC Transportation Technology Transfer Service
Civil Engineering Department
Clemson University — Box 340911
Clemson, SC 29634-0911
Phone: 888.414.3069 Fax: 864.656.2670
e-mail: t3s@ces.clemson.edu**

<i>Director:</i>	Jim Burati	864.656.3315
<i>Program Manager:</i>	Sandi Priddy	864.656.6141
<i>Program Coordinator:</i>	Debbie Lipscomb	864.656.1456

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Transportation Technology Transfer Service
Civil Engineering Department
Clemson University
Box 340911
Clemson, SC 29634-0911