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October 31, 2000



Marc Bailey  
Los Alamos National Laboratory  
MS K497  
P.O. Box 1663  
Los Alamos, New Mexico 87545

RE: 401 Water Quality Certification with Conditions - File #2000-064  
Martin Spring – Tributary to Water Canyon  
Experimental Treatment System for Removal of High Explosives from Surface Water

Dear Mr. Bailey:

The Surface Water Quality Bureau (SWQB) of the New Mexico Environment Department (NMED) has reviewed your application to perform work in Martin Spring, a tributary to Water Canyon, located on Department of Energy (DOE) property in Los Alamos County, New Mexico (southwest ¼ of Section 29, T19N, R6E). The proposed project will involve the installation of two Catch Basin Stormfilters within the channel downgradient of Martin Spring. Each stormfilter contains four granulated activated carbon cartridges that will remove constituents of high explosives, primarily RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine) and barium, from surface water flowing through the system.

This project will be regulated by a U.S. Army Corps of Engineers (COE) 404 Nationwide Permit (NWP) #5 for Scientific Measurement Devices that discharge into Waters of the U.S. (COE File #1999-00212). The State 401 Water Quality certification is required pursuant to Condition #9 in the COE permit. The purpose of the certification is to ensure that your project will comply with applicable State water quality standards and the Antidegradation Policy. The SWQB has assigned file #2000-064 to your project certification.

Some of the State water quality standards for Martin Spring that are most related to your project include:

1. Stream Bottom Deposits: Surface waters of the state shall be free of water contaminants from other than natural causes that will settle and damage or impair the normal growth, function, or reproduction of aquatic life or significantly alter the physical or chemical properties of the stream bottom (subsection A. of 20.6.4.12 NMAC).



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2. **Toxic Pollutants:** Surface waters of the state shall be free of toxic pollutants attributable to discharges in amounts, concentrations or combinations which affect the propagation of fish or which are toxic to fish or other aquatic organisms; wildlife using aquatic environments for habitation or aquatic organisms for food; or to livestock or other animals (subsection F. of 20.6.4.12 NMAC).
3. **Turbidity:** Turbidity attributable to other than natural causes shall not reduce light transmission to the point that the normal growth, function, or reproduction of aquatic life is impaired or that will cause substantial visible contrast with the natural appearance of the water (subsection J. of 20.6.4.12 NMAC).

**In addition to the standards noted above, refer to the enclosed attachment for a complete list of the standards that apply to the drainages in your project area (*Standards for Interstate & Intrastate Surface Waters, New Mexico Water Quality Control Commission, 20.6.4.8, 20.6.4.10, 20.6.4.12, 20.6.4.900, NMAC (10/12/00)*). Please be aware that all water quality standards must be met in order to remain in compliance with applicable State regulations.**

**401 Water Quality Certification with Conditions:**

Pursuant to Section 401 of the Clean Water Act and 40 Code of Federal Regulations Part 121, the SWQB hereby grants 401 Certification approval with Conditions for COE NWP#5 - File # 1999-00212. The SWQB can be reasonably assured that project activities will meet State water quality standards and be protective of existing water quality as described in the Antidegradation Policy if the following conditions are implemented:

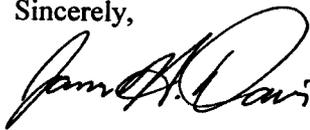
1. The project must be completed during low flow conditions.
2. Any material excavated from the project area must be removed off-site and disposed of properly in accordance with NMED Hazardous Waste Bureau (HWB) requirements.
3. Sediment collected over time within the Catch Basin Stormfilters must be removed off-site and disposed of properly in accordance with NMED HWB requirements.
4. The Catch Basin Stormfilter box must be installed in a manner that minimizes disturbance to the streambanks and channel substrate and prevents future downstream erosion.
5. A copy of the operation and maintenance plan for the Catch Basin Stormfilter must be submitted to the SWQB as soon as possible.
6. During in-channel work, flowing water should be temporarily diverted with non-erodible barriers (e.g. sand bags, concrete bases, water bladders, boards) around the work area to minimize sedimentation and turbidity downstream. The 404/401 application states that flow will be diverted via a temporary dam and flexible hose.
7. Temporary mats must be placed on creek banks and riparian areas where heavy equipment will be positioned to minimize disturbance to soils and vegetation.
8. Prior to construction, erosion control measures (e.g. silt fence, straw bales) must be installed below any areas of soil disturbance to prevent offsite erosion into surface water. The project area must be protected such that surface runoff from precipitation will not move any soil or other contaminants into the creek channel. The erosion control measures must be inspected and maintained on a regular basis to ensure they are working properly.

9. Areas that are disturbed during the project must be permanently replanted/seeded with native riparian vegetation until the site is no longer subject to erosion. Silt fences or other erosion control measures must remain on-site and maintained until the disturbed areas are permanently vegetated.
10. All heavy equipment used in the project area must be steam cleaned before the start of the project and inspected daily for leaks. Leaking equipment must not be used in or near any watercourse. Equipment must be parked outside of the channel when not in use.
11. Spill clean-up materials (e.g., booms, absorbent pads) must be available on-site at all times during construction. Report all spills immediately to the SWQB as required by the New Mexico Water Quality Control Commission regulations (Section 1203 of 20 NMAC 6.2).
12. Fuel, oil, hydraulic fluid, or substances of this nature must not be stored within the normal floodplain and must have a secondary containment system to prevent spills if the primary storage container leaks. Equipment should be refueled at least 100 feet from surface water.
13. A copy of this 401 certification must be kept at the project site. All contractors involved in your project must be provided a copy of this certification prior to starting construction.
14. The SWQB must be notified at least 5 days before construction begins. This notice will allow time to schedule monitoring or inspections if necessary.

Violations of State water quality standards could lead to penalties under the New Mexico Water Quality Act. Section 74-6-10.1 B of the Act states, "Any person who violates any provision of the New Mexico Water Quality Act other than Section 74-6-5 NMSA 1978 or any person who violates any regulation, water quality standard, or compliance order adopted pursuant to that act shall be assessed civil penalties up to the amount of ten thousand dollars (\$10,000) per day for each violation."

The SWQB specifically reserves the right to amend or revoke this 401 Certification at any time to ensure compliance of water quality standards. If you have any questions regarding this 401 Water Quality Certification with Conditions for your project at Martin Spring on DOE property in Los Alamos County, please feel free to contact Sandy Spon at (505) 827-0417. Thank you.

Sincerely,



James H. Davis, Ph.D.  
Bureau Chief

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xc: District II Manager, Los Alamos Office, NMED  
Edward Paulsgrove, U.S. Army Corps of Engineers, Attn: Regulatory Branch  
Jim Herrington, Wetlands, Region 6, USEPA  
Tod Stevenson, NM Department of Game and Fish  
Joy Nicholopoulos, U.S. Fish and Wildlife Service  
✓ John Kieling, NMED Hazardous Material Bureau  
Ralph Ford-Schmid, NMED DOE Oversight Bureau  
401 Certification File #2000-064