

# EFCOG BEST PRACTICE #32

## Revision 01

**Title:** Reducing Time and Cost through use of a general Storm Water Pollution Prevention Plan (SWP3) for Construction Activities (3/02/05)

**Facility:** DOE/NNSA: Babcock & Wilcox Technical Services Pantex LLC (B&W Pantex)

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### **Brief Description of Current Best Practice:**

Any construction project that will disturb more than 1 acre is required to develop and implement a Storm Water Pollution Prevention Plan (SWP3), by state regulation in Texas. Pantex has developed an SWP3 that is used for all impacted construction projects at the site. The SWP3 identifies acceptable control measures, reporting and record keeping requirements, and provides for continued coverage of the project area upon release of the construction contractor until the permit's coverage may be terminated.

Contractors will be provided with the General Plan in a WORD Template format. The contractor uses the template to create a General Plan which addresses their specific project's scope, location, and control methodology. After the contractor's management has certified the plan, it is then reviewed, returned for modification if necessary, and then certified by B&W Pantex management. Upon completion of signatures, the Primary Operator, which is usually B&W, submits a Notification of Intent (NOI) to the Texas Commission on Environmental Quality (TCEQ) if the project will disturb more than 5 acres of land.

### **Why was the Best Practice Used:**

Construction projects are time-critical activities. An SWP3 has to be developed and certified by a Responsible Official of the firm that implements them (initially, this is the prime Contractor for the project) before any soil disturbance can occur.

Many subcontractors need support to develop an SWP3 for Pantex locations, especially when they are from outside the local area and are not familiar with the geology and weather patterns of the Texas Panhandle (i.e. localized high-intensity thunderstorms).

Finally, permit coverage (with an approved SWP3) must continue after release of the contractor (i.e., until the disturbed site had achieved a perennial vegetative cover with a density of 70 percent of the native background vegetative cover. (This means 70% of what was there before the project: if there was only 50% coverage to begin with then you're trying to achieve 35% for final stabilization)). If the initial plan is acceptable to the site's M&O contractor, compliance during the transition is easier to manage.

### **What are the Benefits of the Best Practice?**

- It expedites development, approval, and implementation for the contractor, reducing the pre-start paperwork;
- It assures that contractors utilize control measures and techniques that have been found to be effective and appropriate to the Texas Panhandle and specifically to the Pantex Plant location;
- It provides the contractor and B&W Pantex with a common SWP3; when B&W Pantex releases the contractor (takes Beneficial Occupancy of the construction area), an SWP3 is already in place and there is no lapse in permit coverage.
- It facilitates training of construction site inspectors, project engineers and project managers on their responsibilities in meeting the regulatory requirements;
- It ensures consistency in SWP3s from project to project.

### **Problems/Issues Associated with the Best Practice which Led to Modifications:**

First, use of the General SWP3 had to be made a contractual requirement. Prior to implementing this change, contractors could select to use the General plan or develop their own. When they chose to create their own, there were none of the time-savings noted in the benefits.

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The first general SWP3 was a two part document. The first portion was a general plan which provided information that regulations required to be included in a SWP3 which would apply anywhere on the Pantex site (e.g., meteorology, soil profiles, discussions on the operational areas of the plant). This portion of the plan changed very infrequently. The second portion was a project-specific addendum which the sub-contractor completed. This portion detailed those actions which might be considered unique to a specific contract, including: locations of the project's storm water control measures and erosion controls; project features which might release contaminants to the environment, such as material storage piles, fuel and chemical storage areas, and identification of the personnel responsible for implementing and maintaining the SWP3.

B&W decided to modify this general SWP3. Pantex noticed that subcontractors occasionally were unfamiliar with their duties and responsibilities which had been covered in the first portion of the SWP3. Based on follow-up discussions, it became apparent that subcontract personnel did not read or consider they were bound by the commitments in this portion of the plan. Having the subcontractor involved in development of the entire plan is intended to address their awareness and commitment to implement the entire plan.

A final change that Pantex implemented was establishing a contractually enforced time when operators would evaluate the effectiveness of the control measures and identify needed corrections. The federal and state general permits require that qualified personnel must periodically perform and document evaluations of the adequacy of the control measures in use; modifying and updating the plan as needed throughout the life of the construction project. This may be done within 24 hours after any rainfall event which drops more than .5 inches of rain (or once a month if there is no rain that month), or on a weekly basis. Initially, Pantex allowed contractors to choose either option and conduct their work accordingly. Pantex now requires subcontractors to use the weekly evaluation option. By doing so, Pantex avoids the need to determine if an on-site location actually experienced a rainfall event which would require an evaluation within 24 hours; and the follow-on problem of assuring a subcontractor could gain access to this highly secure reservation within the required time frame.

### **How was the Success of the Best Practice Measured:**

Time to review and approve a contractor's SWP3 went from several weeks (nearly 6 weeks on one project) before implementation of the general plan to approval by both B&W Pantex and the contractor(s) in less than one week. Prior to the implementation of the general SWP3, there could be numerous iterations on plans between the contractor and B&W Pantex environmental staff. These delayed construction start-up while contractors revised and resubmitted their plans and received Pantex approval.

An additional success is that B&W Pantex is better positioned to assume the required inspection duties and evaluate the discharge control measures by having a pre-determined set of measures authorized for use at the plant.

### **Description of Process Experience Using the Best Practice:**

Use of the General Plan has been a contractual requirement for several years. More than 20 projects have been started using the General Plan.

### **ISM Core Function and Guiding Principle to which the Best Practice Relates**

Core Function 1: Define Scope of Work, Principle 2: Clear Roles and Responsibilities

Core Function 3: Develop and Implement Hazard Controls, Principle 5: Identification of Safety Standards and Requirements; Principle 6: Hazard Controls Tailored to Work Being Performed.

Core Function 4: Perform Work Within Controls; Principle 7: Operations Authorization