FOCUS ARTICLE

COMPETENT AUTHORITY APPROVAL
Transportation of Hazardous Materials

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UN / GLOBAL SYSTEM OF HARMONIZATION
In the UN system of classifying hazardous materials, there are references to a “Competent Authority”. While this term may have various meanings in other circles, in relation to hazardous materials transportation, this authority is the designated final word on UN Classification or International Shipping within each country. In the USA, the “Competent Authority” is the Associate Administrator for Hazardous Materials Safety. This is a senior leadership position within PHMSA (US DOT Pipeline and Hazardous Materials Safety Administration). The regulating applicable document is the most current version of 49 CFR parts 100-185.

US DOT COMPETENT AUTHORITY APPROVALS
As stated on the PHMSA website: “A competent authority approval is a written consent [document] required under an international standard [i.e., International Maritime Dangerous Goods (IMDG) code or International Civil Aviation Organization (ICAO)] and is issued by the Associate Administrator for Hazardous Materials Safety”. For specific approval information, you may find it useful to visit PHMSA’s user-friendly website: http://www.phmsa.dot.gov/home.

APPROVED TESTING AGENCIES
There are several types of Competent Authority Approval letters one may obtain. However, for transporting explosives, an EX number or a Special Permit are two of the most common. In order to apply for an approval for transporting an explosive (and the associated EX number) one must first have the explosive examined in accordance to 49 CFR 173.56. Under this section, the Competent Authority of the United States utilizes one or more approved laboratories and examiners to perform this function. These laboratories are approved to recommend a class/division, proper shipping name, compatibility group and even packaging instructions to the DOT. These recommendations will be based on the testing and analysis required by the regulations and performed during the examination. DOT explosives testing performed at a laboratory that is not DOT approved will not be recognized by the DOT.
DOT / UN / COMPETENT AUTHORITY APPROVAL PROCESS

As stated in a previous SCE Focus Article [#101111], no explosives move in commerce without appropriate Competent Authority approval. The US DOT currently states that applicants should expect action on explosives approval requests in approximately 120 days after the required test and recommendation report, support documentation and application have been submitted. For this reason it is important to plan ahead and have your examination completed as early in your product development plan as practical. Even with planning, we recognize that clients often need quick turn-around for the examination so that the time to final approval can be minimized.

At Safety Consulting Engineers (SCE), the typical Competent Authority Approval process and schedule for explosives, blasting agents and precursors, and other explosive materials is as follows:

<table>
<thead>
<tr>
<th>Approval Process</th>
<th>Typical Schedule</th>
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<tbody>
<tr>
<td>1. Client Contacts SCE to discuss needed DOT Competent Authority services</td>
<td>15 to 30 minutes</td>
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<tr>
<td>2. Based on initial discussion, SCE provides a plan and a quote for the Competent Authority services needed by the client and requests more detailed material information required for the examination</td>
<td>1 to 3 business days</td>
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<tr>
<td>3. Client approves a Purchase Order or similar authorization for SCE to proceed with the examination</td>
<td>Client dependent</td>
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<tr>
<td>4. Client provides Information Package on the materials to be examined by SCE</td>
<td>Client dependent</td>
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<tr>
<td>5. If required, SCE provides client with a tentative shipping classification, to enable shipment of client’s samples to SCE’s test facilities</td>
<td>1 to 5 business days after receipt of information package</td>
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<td>6. Client samples are received at SCE’s test site*</td>
<td>Client samples are client dependent (typically 7 to 14 days)</td>
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<tr>
<td>7. SCE performs the tests and analysis as required per DOT regulations, and provides a recommendation letter and test report to the client</td>
<td>5 to 25 days after receipt of sample</td>
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<tr>
<td>8. Client requests an approval, and submits the Recommendation Letter, Test Report and Information Package to the DOT (via the DOT website)</td>
<td>Client dependent (can be the same day reports are sent by email from SCE)</td>
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<tr>
<td>9. Client receives a response from the DOT on the approval request</td>
<td>DOT dependent, typically 90 to 120 days</td>
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*Testing may also be performed at client sites, under the direction of an approved examiner, provided they have the required facilities and equipment.
As can be seen from the above schedule, the entire approval process on a new substance or article can require 110 to 170 days, or more. Most of this time is typically at the DOT after your approval request is submitted. In extenuating circumstances, an approval application can be expedited. However, the DOT requires solid justification, generally based on unavoidable circumstances and serious economic hardship or national interests. Poor planning is not normally considered a valid reason for expediting an application. Unfortunately some clients fail to adequately plan and discover too late that their scheduled product roll-out is not going to happen when they wanted it. Having accurate expectations is the first step to adequate planning.

**SUMMARY**

The process to receiving a Competent Authority Approval for explosives requires applicants to have their energetic materials examined by an approved laboratory and approved examiners. SCE was initially granted laboratory competent authority approval in 1999. Since that time, SCE has assisted many clients to obtain the required approvals to transport explosives and other hazardous materials. By working together, we can help you to minimize unpleasant surprises and maximize your product’s potential through safe, accurate and timely testing and analyses.
ABOUT DEKRA INSIGHT

DEKRA Insight is the global leader in safety at work. We specialize in helping clients evolve both their organizational culture and their operational environment, empowering them to reduce injuries, save lives, protect assets—and in the process, achieve higher performance. Our integrated solutions have been honed over decades and are proven to reduce risk and enhance organizational cultures:

• Safety strategy – Building your roadmap for long-term safety improvement
• Culture & leadership – Building high-performance teams
• Behavioral reliability – Assuring unwavering execution of safety systems and processes
• Governance & capabilities – Providing the framework for safety execution and results
• Safety Resource Optimization – Putting your resources to work for safety
• Management Systems – Developing and aligning the systems that drive safety excellence
• Data Analytics & Metrics – Information and insight that drive results
• Process Safety Lab Testing – Precise data, analysis and tools for process safety decision and action
• Process Safety Engineering – Engineering and advice for process safety excellence everywhere

DEKRA Insight represents the collective expertise of our legacy businesses and partners, each an institution in safety: BST, Chilworth, Optimus Seventh Generation, RCI Safety, RoundTheClock Resources, and Russell Consulting.

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Safety Consulting Engineers, Inc. (SCE) is an approved test agency, recognized by the United States Department of Transportation (DOT) to test and examine explosives or potentially explosive substances and recommend the proper shipping classification. We have the skills and credentials to assist you in all your test and analysis needs for energetic materials or processes.

For more information regarding process hazards analysis, system safety, material characterization, DOT and other regulatory compliance, and any associated testing, please contact us at 847-925-8100 or email us at sceinc@scen.com.