

Pipeline, Hazardous Material Safety Administration’s
Frequently Asked Questions on Chained Display Aerial Shells in the
2018 APA Standard 87-1B

Question #1: Are Chained Display Aerial Shells (CDAS) authorized under the 2018 APA Standard 87-1B?

Answer: Yes. Display aerial shells approved under the new standard—2018 APA Standard 87-1B—are authorized to be “Chained”. (See Section 2.4 General Requirements – Aerial Shell Chaining). Chained Display Aerial Shells do not require an additional EX number for transportation.

Question #2: If a manufacturer wants to use a display aerial shell approved under the 2001 APA Standard 87-1 for chaining, will the manufacturer need to reapply under the new 2018 APA Standard 87-1B?

Answer: Yes. The manufacturer will need to reapply under the new 2018 APA Standard 87-1B. A new EX classification approval will be issued for the new Display Aerial Shell if the manufacturing criteria meets the requirements of the new 2018 APA Standard 87-1B. A “Note” will be added to the approval letter indicating that the display aerial shell(s) are authorized for chaining. The maximum number of shells in a chain is controlled by the largest shell size as specified in Section 2.4 General Requirement table for “Aerial Shell Chaining.” Please note there are new requirements and restrictions to some of the fireworks chemicals. Applicants should refer to PHMSA’s website for an updated chemical list for display fireworks.

Question #3: Does the manufacturer need a new approval for CDAS if the shells were approved under the 2018 APA Standard 87-1B?

Answer: No. When a Display Aerial Shell(s) are approved under the 2018 APA Standard 87-1B, the shell(s) are automatically authorized for the provision of creating chained display aerial shells, provided the shells comply with the criteria set forth in Section 2.4 General Requirements - “Aerial Shell Chaining.” (See Table 1 below for the CDAS criteria).

Question #4: Does the manufacturer need to comply with the requirements in Section 2.4 General Requirement – “Finished Display Fireworks,” Item #5 in Table 2 below (i.e. - Mark the EX number on the device)?

Answer: Yes. The manufacturer must mark each display aerial shell with its approved EX number in the chained device. Additionally, if the device is too small, the EX number may be marked on the packaging, (See Table 2 below).

Question #5: Will PHMSA issue EX Classification Approvals for a CDAS under the 2001 APA Standard 87-1?

Answer: No. PHMSA will not issue an EX Classification Approval for a CDAS under the 2001 APA Standard 87-1. Shell chaining was not permitted under the 2001 APA Standard 87-1.

Question #6: Is PHMSA going to terminate previously approved individual display aerial shells or display aerial shell series under the 2001 APA Standard 87-1?

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Answer: No. The manufacturer can continue to manufacture the display aerial shells for sale and distribution under the 2001 APA Standard 87-1 provided the conditions of the EX approval are complied with.

The following tables are from Section 2.4 General Requirements in the 2018 APA Standard 87-1B.

Table 1. Aerial Shell Chaining

Aerial Shell Chaining	<p>Chaining is permitted under the following conditions:</p> <p style="text-align: center;">Aerial Shell (Color with or without report) and Aerial Shell of Shells</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Shell Diameter (mm)</th> <th>Maximum Number of Shells Per Chain</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">75 or less</td> <td style="text-align: center;">12</td> </tr> <tr> <td style="text-align: center;">100</td> <td style="text-align: center;">8</td> </tr> <tr> <td style="text-align: center;">125</td> <td style="text-align: center;">5</td> </tr> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">5</td> </tr> </tbody> </table> <p style="text-align: center;">Aerial Shell (Report Only)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Shell Diameter</th> <th>Maximum Length of Chain</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">65 or less</td> <td style="text-align: center;">12</td> </tr> </tbody> </table>	Shell Diameter (mm)	Maximum Number of Shells Per Chain	75 or less	12	100	8	125	5	150	5	Shell Diameter	Maximum Length of Chain	65 or less	12
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75 or less	12														
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Table 2. Finished Display Fireworks

Finished Display Firework	<p>A display firework that:</p> <ol style="list-style-type: none"> 1. Meets the General Requirements for that specific device; 2. Meets all the requirements in the requirement tables in Part 3; 3. Passes the Thermal Stability Test in Part 4; 4. Has no loose chemical composition in the packaging; 5. Marked with the EX Number on the device, or packaging if the device is too small; and 6. Any device manufactured, prior to October 1, 2018, is not required to be marked with the EX Number.
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