

SANTA ROSA FIRE DEPARTMENT
FIRE PREVENTION BUREAU
INSPECTION CHECKLIST

July 1, 2010



EXPLOSIVES and BLASTING

Address:		Permit #:
Inspector:	Date:	Status:
Inspector:	Date:	Status:
A-Approved, R-Re-inspection Required		

This Checklist outlines general requirements. Information contained herein applies to typical instances and may not address all circumstances.

FILE REVIEW

REVIEW FILE – Is there an alternate method application approved for the operation?

REVIEW PLANS, PLAN NOTES AND FD APPROVAL LETTER – Verify that all conditions for the operation are being adhered too.

REQUIRED INSPECTIONS

1. **INITIAL INSPECTION** – Prior to addition of explosives, a fire inspection shall take place to approve Fire Department Conditions. Verification shall be made that REDCOM Dispatch has been notified of the pending blast. The inspector will verify pre-blast procedures and verify safety measures to be carried out.

Note: at the digression of the inspector on scene, they may witness the first blast to ensure no unusual hazards or conditions are present during or after the blast.

2. **POST BLAST INPSECTION** – Post blast, a Fire Department Inspection shall take place to verify post-blast procedures and compliance with detonation and demobilization protocol.

PRE-BLAST

3. **NOTIFICATIONS** – Verify notification of neighboring residents and/or occupants has been done.

4. **EXPLOSIVE SPECIFICS** – Verify the depth of hole(s) and drill specifications as per plans. The type of explosive(s). The type of initiating device(s). The quantity of explosive for each load and the aggregate quantity of explosives on the job site. The detonation specifications relative to series and lapses. (TI 19 CCR 1569 – 1569.4)

5. **SAFEGUARDS**– Verify all methods of safeguarding the site are in place (ex. Warning devices, barricades, guards, etc). Methods for measuring seismic movement. Pre-blast procedures and Post Blast Procedures on site to be followed. (TI 19 CCR 1568 – 1568.8)

Inspection Checklist
Explosives Permit

- | | Y | N | |
|-----|--------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | RESPONSIBLE PERSON – Verify the person in charge of the handling and use of explosive materials as listed in the permit is on site. (TI 19 CCR 1568) |
| 7. | <input type="checkbox"/> | <input type="checkbox"/> | SITE PROTECTION – Verify if blasting is performed in a congested area or in close proximity to a building, structure, railway, highway or other installation that could be damaged by material being thrown into the air, the blast is covered with an adequate blasting mat. (TI 19 CCR 1568.8) |
| 8. | <input type="checkbox"/> | <input type="checkbox"/> | PRECAUTIONS – Verify the following: blasting will not be taking place during storm events, posting of signs prohibiting the use of mobile radio transmitters and cellular phones on roads within one-thousand (1,000) feet of blasting operations where electric detonators are being used, periodic checks of the site perimeters shall be conducted to ensure that no equipment or people have been introduced into the blast area. (TI 19 CCR 1568.8) |
| 9. | <input type="checkbox"/> | <input type="checkbox"/> | BLAST WARNING – Verify with the person in charge that surplus explosive materials are in a safe place, that persons and vehicles are at a safe distance or under sufficient cover, and that a loud warning signal has or will be sounded prior to the first blast. (TI 19 CCR 1570.8) |
| 10. | <input type="checkbox"/> | <input type="checkbox"/> | PROCEDURES – Verify with the person in charge that a copy of the pre-blast procedures and City of Santa Rosa Explosives and Blasting Standards are on site and have been complied with. |

BLAST INITIATION

- | | | | |
|-----|--------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11. | <input type="checkbox"/> | <input type="checkbox"/> | Verify cap and fuse will not be used to initiate blasts in congested areas or adjacent to highways open to traffic. (TI 19 CCR 1568.4) |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | Verify, where a safety fuse is used, the burning rate has been determined by the permit holder or blaster and the fuse lengths are less than one-hundred-twenty (120) seconds. The detonator shall be attached securely to the fuse with a standard ring-type cap crimper. (NFPA 495 10.3.2.1) |
| 13. | <input type="checkbox"/> | <input type="checkbox"/> | Verify, where electric detonators are used, stray current tests are made as frequently as necessary. Maximum stray current shall not exceed 0.05 amperes through a 1-ohm resistor, measured at the blast site. Non-electric initiating systems shall be used unless corrective action is taken to reduce the stray current below the limits indicated in this paragraph. (NFPA 495 10.3.3.2) |
| 14. | <input type="checkbox"/> | <input type="checkbox"/> | Verify that electric detonators of different brands are not being used in the same firing circuit. Original containers and/or wrappers shall be available on site for Fire Department inspection. (NFPA 495 10.3.4) |
| 15. | <input type="checkbox"/> | <input type="checkbox"/> | Verify all electric blasting circuits and other initiating systems whose continuity can be tested (such as gas detonator initiating systems) have been tested with a blasting galvanometer or other blast continuity test instrument, as appropriate, that has been designed and approved for the purpose. All electrically initiated blasts shall be made by using blasting machines suitable for the circuitry being fired. (NFPA 495 10.3.5) |
| 16. | <input type="checkbox"/> | <input type="checkbox"/> | Verify that no detonator are to be inserted in explosive materials that do not have a cap well without first making a hole in the cartridge with a proper size non-sparking tool or the appropriate pointed handle of an approved cap crimper. (NFPA 495 10.3.7) |
| 17. | <input type="checkbox"/> | <input type="checkbox"/> | Verify primers are not to be assembled closer than fifty (50) feet from any magazine or other means of explosives storage. Primers shall be assembled only when and as necessary for immediate needs. (NFPA 495 10.3.7.1) |

Inspection Checklist
Explosives Permit

- | | Y | N | |
|-----|--------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18. | <input type="checkbox"/> | <input type="checkbox"/> | Where using non-electric initiation systems (NFPA 495 10.3.7.6): |
| | <input type="checkbox"/> | <input type="checkbox"/> | Verify the blaster in charge is selecting the initiation systems and designing the blast; |
| | <input type="checkbox"/> | <input type="checkbox"/> | Verify the initiation system is being used in accordance with the manufacturers instructions; |
| | <input type="checkbox"/> | <input type="checkbox"/> | Verify the blaster in charge conducts a visual check after blast hookup; |
| | <input type="checkbox"/> | <input type="checkbox"/> | Verify the blast layout will be tested for continuity as recommended by the manufacturer where using a system that can be tested for continuity. |
| 19. | <input type="checkbox"/> | <input type="checkbox"/> | Verify that only the person making the lead line connections or the blaster in charge will fire the blast. All connections shall be made progressively from the borehole back to the initiation point. Blasting lead lines shall remain shunted (shorted) and shall not be connected to the blasting machine or other source of current until the blast is to be fired. (NFPA 495 10.3.8) |
| 20. | <input type="checkbox"/> | <input type="checkbox"/> | Verify that the blaster in charge has made certain that all surplus explosive materials are in a safe place, all persons and equipment are at a safe distance or under sufficient cover, and an adequate warning signal has been given prior to the first blast. (NFPA 495 10.3.9) |
| 21. | <input type="checkbox"/> | <input type="checkbox"/> | PROCEDURES – Verify with the person in charge that a copy of the post-blast procedures are on site and will be complied with. |

POST-BLAST

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|-----|--------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22. | <input type="checkbox"/> | <input type="checkbox"/> | PROCEDURES – Verify with the person in charge that a copy of the post-blast procedures are on site and have been complied with. |
| 23. | <input type="checkbox"/> | <input type="checkbox"/> | SWEEP – Verify the blaster inspected the entire blast site for misfires. (NFPA 495 10.5.1 – 10.5.8) |
| 24. | <input type="checkbox"/> | <input type="checkbox"/> | MISFIRES – Verify if misfires were noted. Where a misfire is found, the blaster shall provide the proper safeguards for excluding all personnel from the blast area. Verify compliance with misfire handling procedures. (NFPA 495 10.5.1 – 495 10.5.8). |