restricts exposure to surface personnel. Seawater can absorb and/or disperse significant quantities of methane and other gases. The possibility of riser rupture or collapse is mitigated by this arrangement.

It is anticipated that there would also be a rotating head, annular preventer or diverter bag installed at the rig floor to insure that no hydrocarbon could reach the rig floor. The perforated riser joint should divert most of the blowout effluent, but some could percolate through the riser gaining velocity as it expands inside the riser above the perforated joint. Some sealing device with a venting system at the surface is required.

7.6.6 Kill Stack Installation. Figure 7.6.7 depicts a new stack that has been installed over casing cut off and dressed using either explosive or jet cutters. A guide cone is shown on the bottom of the new stack with a hydraulically or mechanically activated slip-type "quick coupler", a device that can set and seal on the outside of the casing. This permits landing a variety of BOPs, subsea diverter spools, annular BOPs or other devices for controlling the blowout.

Affixing the capping stack to casing that is bent at an angle, egged, lipped, eroded or split may be difficult. The rig may have to lower the stack over the casing stub, then winch over on its anchor lines, or move using its DP system, to achieve the proper angle to allow the stack to slip completely over the stub. In this scenario, there would have to be some surface sealing device such as an annular preventer or rotating head to prevent oil or gas from reaching the rig floor.

It is recognized that this will probably be applicable only in certain low pressure situations. The wellhead components must be small and light enough for the casing stub to support its weight without further damaging the pipe.

7.6.7 Emergency Disconnect. An emergency disconnect connector is incorporated into this system. This connector allows disconnecting of the riser in the event of an emergency during the kill operation. A flex-joint is also included in the emergency disconnect package.

If an emergency develops, the tubing or drillpipe in the hole would be sheared and the upper section pulled off along with the riser. Provisions for shearing guidelines can also be incorporated into the system in the form of guillotine- or explosive-type shears. These may not required in all cases.