Carbon Monoxide Poisoning

Operations personnel of an offshore platform were sent to the hospital after they all woke up complaining of headaches, nausea and vomiting. The results of the examination revealed that there were elevated levels of carbon monoxide in their blood. Of the 14 personnel that were examined, eight had to be kept overnight for observation. The eight were released the next day and all returned to work with no restrictions.

Temporary quarters were installed to accommodate personnel during a simultaneous operation of producing wells and a well plug and abandonment. The configuration of the facility’s temporary living quarters and accommodation spaces consisted of the platform offices, galley, TV room, bedrooms, and bathrooms being stacked on top of the MCC room and generator spaces. It was concluded from the investigation of two independent reports from two industrial air quality engineers that the undiluted carbon monoxide fumes from the natural gas engines traveled into the living quarters by the natural flow of air around the living quarters’ building. The fumes were able to gain access into the living quarters by way of a fresh air inlet to the air conditioning system, the galley stove exhaust vent, and other normal open vents and doorways that exist in all offshore living quarters. Of these noted introduction paths into the quarters, the biggest was the air conditioning system’s fresh air inlet. Once inside the air conditioning system’s vent passage, the operation of the fan motor circulated the fumes throughout the quarters, and because the fresh air vent was not ever closed off, this further allowed a constant supply of fresh carbon monoxide fumes to be readily available.

MMS recommends the following:

- Installation of temporary quarters on platforms that have permanently installed natural gas engines should be reviewed in respect to the engine’s exhaust.

- Carbon monoxide detectors should be placed inside the quarters and all accommodation spaces.

- All existing platforms should be inspected to ensure exhausts are not located near potential entry points on temporary or permanently installed living quarters.

- Inspect all exhaust vents to ensure wind flaps are installed and working properly.

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