



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

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From: Chief of Naval Operations
To: Distribution

Subj: NAVY PERCHLORATE SAMPLING AND MANAGEMENT POLICY

Ref: (a) Navy Perchlorate Assessment Policy of 5 December 2003

Encl: (1) Navy Perchlorate Sampling and Management Policy,
15 April 2006

1. Enclosure (1) provides Navy policy for sampling and managing perchlorate. Enclosure (1) supercedes reference (a).

2. Lacking regulatory standards for perchlorate, enclosure (1) of enclosure (1) establishes a DoD "level of concern" (LOC) for perchlorate of 24 parts-per-billion (ppb) until such time that state or federal standards are promulgated. When state or federal regulations are promulgated the more stringent number will be used for DoD perchlorate actions.

3. My staff point of contact is Mr. Geoffrey D. Cullison, N456J, at (703) 602-5329, DSN 332-5329 or e-mail geoffrey.cullison@navy.mil.

A handwritten signature in black ink, appearing to read "J. A. Symonds", is positioned above the typed name.

J. A. SYMONDS
Rear Admiral, U.S. Navy
Director, Environmental Readiness
Division (OPNAV N45)

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Navy Perchlorate Sampling and Management Policy
15 April 2006

Ref: (a) DoD Perchlorate Handbook, March 2006
<http://www.navylabs.navy.mil/Archive/DoDPerchlorateHandbook.pdf>
(b) DoDI 4715.8, "Environmental Remediation for Overseas Activities"

Encl: (1) Policy on DoD Required Actions Related to Perchlorate, 26 January 2006

1. This policy provides Navy specific requirements to implement Enclosure (1). This policy supercedes Navy Perchlorate Assessment Policy of 5 December 2003.

2. Enclosure (1) establishes 24 ppb as the level of concern for managing perchlorate in the environment. Where there are properly promulgated federal or state regulatory standards for perchlorate, enclosure (1) directs use of whichever is most stringent. Throughout this policy "24 ppb" means 24 ppb or more stringent, properly promulgated federal or state regulatory standards for perchlorate.

3. It is Navy policy to sample all sites where there is reasonable expectation that a perchlorate release has occurred as a result of Navy activities, including those sites previously analyzed with EPA Method 314.0. This is because the new EPA mass-spectroscopy-based analytical methods discussed in paragraph 5 below are more definitive than the previous method 314.0 and will provide a higher level of confidence about the occurrence of perchlorate in the various environmental media at a given site.

4. In determining the likelihood of perchlorate, installations should consider the volume of perchlorate used or disposed, and/or the intensity of perchlorate related functions at the site. Functions that could potentially contribute to Perchlorate occurrence include, but are not limited to:

- a. The manufacture/maintenance of solid-fuel missile/rocket motors, and/or munitions containing perchlorates;
- b. The use of perchlorate-containing munitions for training or testing purposes;
- c. The demilitarization of perchlorate-containing munitions using techniques, such as "hog-out" of rockets and missiles containing solid propellant; and

Enclosure (1)

d. Open burning/open detonation operations.

Simple logistical handling of perchlorate-containing weapons/munitions is not a likely source of perchlorate into the environment.

5. Analytical methods employing mass spectrometry (MS) must be used for the analysis of environmental media for perchlorate, unless otherwise specified by permit. When using MS for the determination of perchlorate in drinking water, EPA Methods 331.0 or 332.0 shall be used. At this time, the EPA has not published any methods for the analysis of environmental media other than drinking water (e.g., wastewater, soil, sediment, etc.) for perchlorate using MS; therefore, required analytical method performance criteria are specified in Appendix G of reference (a). When EPA Methods 6850 and 6860 are published, the criteria specified in the published method will be followed unless more restrictive criteria are specified in Appendix G of reference (a).

6. Management actions to be taken in response to perchlorate detections are outlined below:

a. Environmental Restoration and Munitions Response Programs (MRP)

Any perchlorate detection at or greater than 24 ppb in water requires preparation of site-specific risk assessments in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Defense Environmental Restoration Program (DERP), and the National Contingency Plan (NCP) to evaluate the extent of actual or potential exposures. Where a site-specific risk assessment indicates perchlorate concentrations could potentially result in adverse health effects, the site will be prioritized for appropriate risk management. Where no federal or state Applicable or Relevant and Appropriate Requirements (ARARs) have been promulgated, risk assessors and risk managers may, when appropriate, identify other federal or state advisories, criteria, or guidance to be considered.

Sampling may be terminated for any individual DERP or MRP sampling point after analytical results indicate that perchlorate concentrations are likely to remain below the appropriate level of concern as established by the site-specific risk assessment for that media at that sample point, except where continued sampling is required by permit conditions, policy or agreement.

b. Operational Ranges

Assessment for perchlorate and any necessary follow-on actions are included in the Range Sustainability and Environmental Program Assessment (RSEPA). Design of any follow-on actions will be based on site-specific risk assessment.

c. Navy-Owned Drinking Water Systems

All Navy-owned drinking water systems (including distribution/consecutive systems) that currently sample for inorganic analytes pursuant to regulatory requirements shall sample for perchlorate at least once in each of the next two quarters using one of the new methods discussed in paragraph 5.

The first round of sampling shall be completed not later than 31 August 2006. Where confirmed analytical results indicate the presence of perchlorate in finished drinking water at any level above the method reporting limit for the analytical method used, installations shall notify and consult with their Budget Submitting Office (BSO) regarding appropriate follow on actions. Actions may include development of an action plan to reduce exposure to perchlorate as appropriate for the protection of human health and additional sampling. At a minimum, installations shall continue to sample quarterly, or in accordance with regulatory requirements, whichever is more frequent, until the installation and BSO are satisfied that perchlorate concentrations are likely to remain below 24 ppb.

If, after two consecutive quarterly sampling periods, the confirmed perchlorate sampling results are below 4 ppb, sampling may be discontinued, unless otherwise required to do so by regulation or permit terms.

The requirements of this paragraph also apply to water systems at overseas permanent facilities that are required to conduct drinking water sampling.

Enclosure (1)

The first round of laboratory results should be reported to the BSO within 60 days of receipt, and not later than 30 September 2006.

d. Permitted Wastewater Effluent

Discharges at installations where the use of perchlorate is associated with processes related to the manufacture, maintenance, processing, recycling, or demilitarization of military munitions shall be sampled for perchlorate at permitted wastewater discharge points. Sampling will be conducted semi-annually and if possible in conjunction with effluent sampling already conducted under the applicable permit to each point source. The first sample shall be completed by 31 August 2006. The second sample shall be completed by 31 January 2007. Data results shall be reported to the headquarters by 30 September 06 and 31 March 07 for the first and second sample respectively. Installations with confirmed results that indicate the presence of perchlorate in wastewater effluent discharges at any level above the method reporting limit for the analytical method used shall consult with their headquarters on appropriate actions. Sample results are to be reported to the permitting regulatory authority if it is required by the NPDES permit or State regulations. Sampling requirements of this paragraph also apply to overseas wastewater systems.

7. Any overseas management actions will be conducted in accordance with international agreements and reference (b).

8. To adequately plan and budget for future program requirements necessary to comply with this policy BSOs are hereby authorized to program resources as follows:

a. Compliance actions are Environmental Quality Status Class I requirements. Compliance funding is to be used at installations for;

i. Suspected perchlorate contamination from installation operations that continued past or occurred after the DERP cut-off date of 17 October 1986;

Enclosure (1)

- ii. Current and future SDWA and CWA perchlorate sampling;
 - iii. Suspected perchlorate contamination from activities on an operational range;
 - iv. Suspected perchlorate contamination on a range closed after 30 September 2002; and
 - v. Analysis and maintenance of the perchlorate database.
- b. ER,N funds are to be used at installations consistent with DERP-eligibility requirements.
 - c. BRAC funding is to be used for any case on installations closed or closing under any of the BRAC laws.

9. All perchlorate sampling results must be entered into the Navy Perchlorate Survey database. The perchlorate survey database is updated annually in Feb-Mar with data generated during the previous calendar year.



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

JAN 26 2006

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY
(INSTALLATIONS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE NAVY (INSTALLATIONS
AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE AIR FORCE
(INSTALLATIONS, ENVIRONMENT, AND LOGISTICS)
DEFENSE LOGISTICS AGENCY (DSS-E)

SUBJECT: Policy on DoD Required Actions Related to Perchlorate

On January 10, 2005, the National Academy of Sciences completed its toxicological review of perchlorate. Based on the results of the NAS review, the U.S. Environmental Protection Agency (EPA) adopted an oral reference dose (RfD) for perchlorate, which, when used to calculate a Drinking Water Equivalent Level (DWEL), is equivalent to 24.5 parts per billion (ppb). If EPA determines regulation under the Safe Drinking Water Act (SDWA) is appropriate, it will establish a Maximum Contaminant Level Goal (MCLG). Once an MCLG is established, EPA will set an enforceable Maximum Contaminant Level (MCL), which is set as close to the MCLG as feasible using the best available analytical and treatment technologies and taking cost into consideration. Historically, MCLs have been set at levels different from the DWEL. Until such time as EPA or the states promulgate standards for perchlorate, DoD is establishing 24 ppb as the current level of concern for managing perchlorate. Once established, DoD will comply with applicable state or federal promulgated standards whichever is more stringent.

This guidance supersedes the September 29, 2003, memorandum, "Interim Policy on Perchlorate Sampling," and applies to active and closed installations, operational and other than operational ranges, and Formerly Used Defense Sites (FUDS) within the United States, its territories, and possessions, except where otherwise noted. The sampling results generated pursuant to this guidance must be retained by the installation and included in regular updates to each Component's perchlorate database. Semi-annual Environmental Management Reviews will include, on an as-needed basis, reporting requirements for perchlorate.

For drinking water systems and wastewater effluent discharges, perchlorate sampling and follow-on actions taken pursuant to this policy will be considered an Environmental



Quality Status Class I requirement under DoDI 4715.6, "Environmental Compliance," and DoDI 4715.5, "Management of Environmental Compliance at Overseas Installations."

DoD Components shall program resources and address perchlorate under the following programs:

Environmental Restoration

DoD shall sample for perchlorate as required by the National Contingency Plan. Where sampling indicates perchlorate concentrations in water exceed the level of concern (24 ppb) established above, DoD Components are directed to conduct site-specific risk assessments in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Defense Environmental Restoration Program (DERP), and/or the National Contingency Plan to evaluate the extent of actual or potential exposures. No federal or state Applicable or Relevant and Appropriate Requirements (ARARs) have been promulgated at this time. Risk assessors and risk managers may, when appropriate, identify other federal or state advisories, criteria, or guidance to be considered (see 40 CFR 300.400(g)(3)). If a site-specific risk assessment indicates perchlorate concentrations could potentially result in adverse health effects, the DoD Components will prioritize the site for appropriate risk management.

DoD Components may only use environmental restoration funding for activities meeting DERP eligibility requirements described in the current version of the DERP Management Guidance.

Any overseas response actions will be conducted in accordance with international agreements and DoDI 4715.8, "Environmental Remediation for Overseas Activities."

Operational Ranges

DoD Components will assess for the off-range migration of perchlorate from operational ranges in their respective Operational Range Assessment programs consistent with DoDD 4715.11, "Environmental and Explosives Safety Management on Operational Ranges Within the United States," and DoDD 4715.12, "Environmental and Explosives Safety Management on Operational Ranges Outside the United States."

DoD-owned Drinking Water Systems

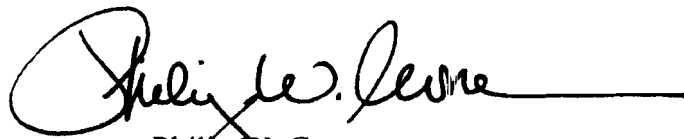
DoD-owned drinking water systems that are required to sample for inorganic analytes pursuant to regulatory requirements shall add perchlorate to their current analyte list. Installations with confirmed results that indicate the presence of perchlorate in finished drinking water shall notify their headquarters and consult with them on appropriate actions, which may include development of an action plan to reduce exposure to perchlorate as appropriate for the protection of public health. At a minimum, these installations shall

continue sampling quarterly until they and their major command are satisfied that perchlorate concentrations are likely to remain below the level of concern (24 ppb). Installations that do not detect perchlorate in drinking water at concentrations above 4 ppb for two consecutive sampling events are not required to continue sampling for perchlorate unless otherwise required to do so by regulation or permit terms. The requirements of this paragraph also apply to water systems at overseas permanent facilities that are required to conduct sampling.

DoD Wastewater Effluent Discharges

DoD Components shall sample semi-annually for perchlorate at permitted point sources where use of perchlorate is associated with processes related to the manufacture, maintenance, processing, recycling, or demilitarization of military munitions. Sampling will be conducted in conjunction with effluent sampling conducted under the permit applicable to that point source. Installations with confirmed results that indicate the presence of perchlorate in wastewater effluent discharges shall notify their headquarters and consult with them on appropriate actions. Depending on applicable water quality standards and other factors (e.g., mixing zones), permit modifications and/or follow-on actions may be required. Nothing in this policy is intended to diminish any requirements established by wastewater discharge permits issued by EPA, state, or host nation regulatory authorities for DoD installations or operations.

This policy is effective immediately.

A handwritten signature in black ink, appearing to read "Philip W. Grone", with a long horizontal line extending to the right.

Philip W. Grone
Deputy Under Secretary of Defense
(Installations and Environment)