



COMMONWEALTH of VIRGINIA

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Comment Response Summary Radford Army Ammunition Plant VA1210020730

July 17, 2011

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VA1210020730**

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COMMENT 1 - Reference June 4, 2014 verbal comment by Peter deFur at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 9, lines 17 - 23 and Page 10, lines 1 - 3. Question: Because I have recently taken this contract and started this work, my first comment is to request an extension of the public comment period. The permit is over seven hundred (700) pages, highly detailed, highly technical and I want a chance to give my client a fair consideration of the technical analysis that I can do for that permit. So that's my first comment. I'd like it to be extended through the end of August.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 2 - Reference June 4, 2014 verbal comment by Peter deFur at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 10, lines 4 - 16. Question: Second of all, in brief review of the materials that I've had a chance to take a look at and the summary, I see that one (1) of the monitorings will be for several of the forms of Dinitrotoluene or DNT. There are, in fact, six (6) different forms of DNT and only two (2) will be monitored and I would recommend that all six (6), either individually or collectively, as total DNT be measured and monitored because the toxicity and the fate in transport is under investigation right now by the scientific community and EPA headquarters is making a determination about how they will be treated.

Response: Dinitrotoluene (DNT) is a technical mixture containing approximately 80% 2,4-dinitrotoluene, approximately 20% 2,6-dinitrotoluene and < 5% 3,4-, 2,3- and 2,5-DNT. 2,4- and 2,6-DNT are the most common isomers produced during TNT synthesis (Han and others 2011), therefore these would be the targeted constituents at this facility. Also, there are no Maximum Contaminant Levels (MCLs) or Risk-based Screening Levels (RSLs) for total DNT or 2,3-, 2,5- and 3,4-DNT and there are currently no EPA-approved analytical methods for the other four DNT isomers (2,3-DNT, 2,5-DNT, 3,4-DNT, and 3,5-DNT). Lastly, as 2,4-dinitrotoluene and 2,6-dinitrotoluene comprise nearly 100 % of DNT, it is the professional opinion of DEQ groundwater staff that the analysis for the additional isomers potentially included in DNT is not warranted because the majority of this mixture is comprised of the two isomers already included on the facility's compliance monitoring list.

COMMENT 3 - Reference June 4, 2014 verbal comment by Travis Williams at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 12, lines 3 - 7. Question: I'd just like to echo some of Mr. deFur's comments. My main concern is really request - to request an extension of the public comment period, at least through August 22nd. There's a lot of information here.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 4 - Reference June 4, 2014 verbal comment by Phyllis Albritton at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 15, lines 6 - 10.

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Question: So I - because the document is intense and I am not an engineer and I really would like to study it, from what the two (2) gentlemen before me have said - and they're experts - I definitely as a concerned citizen, not only for myself, but for many others would like the period extended to at least August 22nd. I mean, we need - we need a little more time. It's very involved.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 5 - Reference June 12, 2014, written comment by Phyllis Albritton.

Question: But, all along, I have been concerned with the way the issues of the arsenal have been "handled" in our community.

Two examples:

1. Open meetings, when there was no sitting down with presentation and time for questions and answers. The public was asked to mull around and comment.
2. Notification of the last meeting:
 - a. One notification in the newspaper almost a whole month prior to the meeting.
 - b. Announcement on ONE radio station, which hardly anyone concerned with the issue listens to.

And, I do wonder if the newspapers were notified of the last meeting, as there were no press people there.

Response:

Information meeting format: The format of the informational meeting followed the café style with tables designated by topic for focused discussion and Q&A. Each table was hosted by a DEQ staff member and included groundwater, permitting and inspections, post closure care and a registration table with handouts entitled, "How to Make Public Comment." Community members were greeted at the door and encouraged to move from table to table as they asked questions of the staff.

Public Hearing format: As the informational meeting ended, participants walked to the hearing room which helped transition from open discussion to formal hearing. The Hearing Officer maintained the position of neutrality and delivered instructions tailored to this hearing. A microphone was placed at a podium that was placed directly in front of the hearing officer so the citizens could address their comments directly to the hearing officer. The Hearing Officer took notes and maintained eye contact with each speaker as they spoke. He took notes and was obviously interested in what they were saying. A registration form listed those who wanted to speak, and the officer asked if anyone would like to speak after the list was exhausted. This was an obvious effort to seek input from the

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participants, which he mentioned several times. He thanked everyone who came out to the informal and formal meetings. The hearing was over in less than one hour.

Notification of the meeting: Public notice was given through Town Hall, email to interested stakeholders, publication on the DEQ's website on 3 different pages ([Waste Permits](#), [Public Calendar](#) and [RAAP facility page](#)). Notification included a local radio. The radio station (107.1 FM, WPSK) selected is considered appropriate for reaching nearby residents in Longshop, McCoy and other communities surrounding the arsenal. People associated with the New River Free Clinic and Radford believe it to be a good choice. Newspaper notice was through the Roanoke Times, New River Valley Edition. Future DEQ Hazardous Waste Program public notices addressing the Radford Arsenal will be advertised in more than one local newspaper and more than one radio station to enhance coverage in the local area.

Press: The DEQ reached out to reporter Orlando Salinas, Channel 7 - Roanoke, before the meeting.

COMMENT 6 - Reference June 4, 2014 verbal comment by Devawn Oberlender at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 15, lines 21 - 23 and Page 16, lines 1 - 2. Question: Hi, Mr. Deppe. Thanks for hearing us. I just want to reiterate - line myself up with those comments that we need more time - at least until August 22nd.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 7 - Reference June 4, 2014 verbal comment by Devawn Oberlender at Public Hearing held at the New River Competitiveness Center, Radford, Virginia, Page 16, lines 10 - 23 and Page 17, lines 1 - 12. Question: And, you know, it's just really patently obvious from who's not in this room that the people who are on the other side of the digital divide - Congressman Morgan Griffith likes to do these telephone town halls, which are fabulous - saves gas, gets people involved - and I was on one (1) just a couple of months ago and this man that is right here and he had to tell Congressman Griffith that his daughter has to go into the - into town - into the library to use the computer because they can't get internet where he lives. So putting it on the Virginia Town Hall website is maybe not, you know, reaching those people on the other side of the digital divide. And, you know, there was - well, there's significant legislation that followed on Executive Order 12898 which requires that people who meet the definition of environmental justice - so those are people who fall within a certain socioeconomic category, which indeed the children here do. Over fifty percent (50%) of the children at Belview elementary qualify for subsidized lunch. Those people aren't here tonight and they, by law, need to be given special consideration.

Response: The idea of doing a telephone town hall will be taken under advisement. See also the response to comment 5.

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COMMENT 8 - Reference June 10, 2014, written comment by Gregory D. Habeeb – Member Virginia House of Delegates. Question: I have received some letters from constituents about the proposed close out of two hazard waste areas sites at Radford Arsenal, HWMU 5 & 16. I am writing to you to ask that you support their request for the extension of the public comment period through August 22, 2014.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 9 - Reference June 4, 2014, written comment by Joseph Yost, Delegate, 12th District, Virginia House of Delegates . Question: I write today in support of an impending request to extend the public comment period for HWMU 5 & 16 from June 19 until August 22. I believe it is imperative to extend this request for the betterment of the citizens I represent but also the entire New River Valley.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 10 - Reference June 3, 2014, written comment by Mark Barbour. Question: I am a stakeholder in the proposed permit change to Hazardous Waste Management Unit (HWMU) 5 & 16 and request that the DEQ extend the public comment period to August 22, 2014, to give our community a full and fair chance to understand this change

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 11 - Reference June 3, 2014, written comment by Meriel Russell. Question: I would like to request an extension of sixty days for public comment on the Post Closure Care Permits for HWMU 5 & 16 at the Radford Army Ammunition Plant. Please leave the comment period open through August 22nd, 2014, to allow for the intervening federal holidays and summer travel schedules.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

COMMENT 12 - Reference June 3, 2014, written comment by Sarah Windes. Question: I am a resident of Blacksburg. I am requesting an extension to August 22 on the comment deadline for the BAE plan for the Radford arsenal. More time is needed to accurately assess the risks of closing the landfill.

Response: The public comment period was not extended as explained in the DEQ's letter dated June 12, 2014, to the commenter.

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PERMIT TABLE OF CONTENTS – ATTACHMENT CONTENT LIST

COMMENT 13 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Attachment 2 – Unit 5 Information:** Attachment 2, Appendix E is titled ‘COMPLIANCE (QUARTERLY) GROUNDWATER MONITORING LIST.’ The term ‘QUARTERLY’ should be replaced with ‘SEMIANNUAL’ to reflect the reduction of sampling frequency from quarterly to semiannually as presented in the VDEQ-approved Class 1 Permit Modification dated June 14, 2007.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

COMMENT 14 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Attachment 3 – Unit 16 Information.** Attachment 3, Appendix E is titled ‘COMPLIANCE (QUARTERLY) GROUND WATER MONITORING LIST.’ The term ‘QUARTERLY’ should be replaced with ‘SEMIANNUAL’ to reflect the reduction of sampling frequency from quarterly to semiannually as presented in the VDEQ-approved Class 1 Permit Modification dated June 14, 2007.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX C – CLOSURE NOTICES AND POST CLOSURE PLANS

COMMENT 15 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Permit Attachment 1, Appendix C.2 – Post-Closure Plan for Units 5, 7, and 16:** The final page of this document is titled ‘Appendix C.2.A – Closure Plan Amendment – Unit 7’ (page no. 146 of the Draft PCC Permit PDF document); this page should be removed as HWMU-7 received clean closure for soil and groundwater and is no longer included in the Permit.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX C – CLOSURE NOTICES AND POST CLOSURE PLANS

COMMENT 16 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question:

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Permit Attachment 1, Appendix C.2 – Post-Closure Plan for Units 5, 7, and 16: The final page of this document is titled ‘Appendix C.2.A – Closure Plan Amendment – Unit 7’ (page no. 146 of the Draft PCC Permit PDF document); this page should be removed as HWMU-7 received clean closure for soil and groundwater and is no longer included in the Permit.

An additional document titled ‘Appendix C.3 – Unit Post-Closure Plan for Unit 10’ is included following Permit Attachment 1, Appendix C.2 (page nos. 147-157 of the Draft PCC Permit PDF document). This document should be removed as HWMU-10 received clean closure for soil and groundwater and is no longer included in the Permit.

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX F – INSPECTION REQUIREMENTS

COMMENT 17 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Appendix F.1 – Example Semi-Annual Inspection Log:** The word ‘Quarterly’ listed under ‘Reason for Inspection’ in Form DUP 6057F should be replaced with ‘Semiannual’.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX G – PERSONNEL AND TRAINING

COMMENT 18 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Appendix G.3 – Personnel Training Summary:** The following statement should be added to the bottom of the table: “NOTE: Names of responsible personnel associated with Permit compliance will be maintained in the facility record at Radford AAP in accordance with 40 CFR § 264.16.d.”

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX H – GROUNDWATER COMPLIANCE MONITORING PROGRAM – EXAMPLE SAMPLING AND ANALYSIS PLAN FOR ALL POST-CLOSURE CARE UNITS

COMMENT 19 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Appendix H.6 – Quality Assurance Project Plan: An Example:** The second sentence of Section 2.2 Target Compounds is missing a reference to Permit Attachment 3; this reference should be added as noted.

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Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

COMMENT 20 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: **Appendix H.8 – EPA III Micro-Purging Guidance:** This appendix includes the BAE Systems Ordnance Systems Inc. Low-Flow Groundwater Sampling and Analysis Plan (page nos. 375-394 of the Draft PCC Permit PDF document). Appendix B of the BAE Low-Flow Groundwater Sampling and Analysis Plan presents Groundwater Compliance Monitoring (Quarterly) Constituent Lists for HWMUs 5, 7, 10, and 16. The reference to ‘Quarterly’ should be revised to ‘Semiannual’ in the lists for HWMUs 5 and 16 to reflect the reduction of sampling frequency from quarterly to semiannually as presented in the VDEQ-approved Class 1 Permit Modification dated June 14, 2007. The monitoring lists for HWMUs 7 and 10 should be removed as both Units received clean closure for soil and groundwater and are no longer included in the Permit. The constituents benzene and diethyl phthalate should be added to the monitoring list for HWMU-16 as noted in the attached pages.

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 1, APPENDIX J – STATISTICAL PROCEDURES

COMMENT 21 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: The title of Section 7.0 ‘Comparison of Ground Water Monitoring Well Data to the Concentration Limits Specified in Permit Attachment 1, Appendices G, J and K (Unit 5) and Permit Attachments 3-5, Appendices G (Units 7, 10, and 16)’ should be revised to ‘Comparison of Ground Water Monitoring Well Data to the Concentration Limits Specified in Permit Attachment 1, Appendices G, J and K (Unit 5) and Permit Attachment 3, Appendix G (Unit 16)’ to remove references to Units 7 and 10.

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 2, APPENDIX D – CONTINGENCY PLAN

COMMENT 22 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question: Permit Attachment 2, Appendix D is missing from the Draft PCC Permit PDF document. The relevant pages are attached to this document for inclusion into the Permit.

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

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PERMIT ATTACHMENT 2, APPENDIX G – UNIT 5 GROUNDWATER PROTECTION STANDARDS

COMMENT 23 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question:

The USEPA MCL and GPS for arsenic listed in Permit Attachment 2, Appendix G is 50 µg/l. The actual USEPA MCL for arsenic is 10 µg/l; therefore, the USEPA MCL and GPS for arsenic listed in Permit Attachment 2, Appendix G should be revised to 10 µg/l.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 2, APPENDIX K – GROUNDWATER CORRECTIVE ACTION ANNUAL MONITORING LIST

COMMENT 24 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question:

The GPS for arsenic listed in Permit Attachment 2, Appendix K should be revised to the USEPA MCL of 10 µg/l.

The VDEQ ACLs listed for vanadium, 2,6-dinitrotoluene, and 4-nitroaniline should be revised to 63 µg/l, 0.042 µg/l, and 3.3 µg/l, respectively, to reflect the most recent VDEQ ACLs (December 2013) as used in Permit Attachment 2, Appendix G.

The GPS for 2,6-dinitrotoluene should be revised to the PQL of 10 µg/l as the VDEQ ACL for 2,6-dinitrotoluene is less than the PQL; this revision is also consistent with the GPS listed for 2,6-dinitrotoluene in Permit Attachment 2, Appendix G.

The reference date for the VDEQ ACLs listed in the Notes section of Appendix K should be revised to December 2013 to reflect the most recent VDEQ ACLs.

Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 3, APPENDIX D – CONTINGENCY PLAN

COMMENT 25 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question:

Permit Attachment 3, Appendix D is missing from the Draft PCC Permit PDF document. The relevant pages are attached to this document for inclusion into the Permit.

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Response: The DEQ concurs with this comment, and the requested changes have been made to the Post-Closure Care Permit.

PERMIT ATTACHMENT 3, APPENDIX G– UNIT 16 GROUNDWATER PROTECTION STANDARDS

COMMENT 26 - Reference June 16, 2014, written comment by Matt Albertson on behalf of BAE Systems Environmental contractor for the Radford Army Ammunition Plant. Question:

The reference date for the VDEQ ACLs listed in the Notes section of Appendix G should be revised to December 2013 to reflect the most recent VDEQ ACLs. The VDEQ ACL values listed in the table reflect the December 2013 values.

Response: The DEQ concurs with this comment, and the requested change has been made to the Post-Closure Care Permit.