



REQUEST FOR APPROVAL OF ALTERNATIVE WASTE MANAGEMENT PRACTICES (Unconventional Operations Only)

NOTE: This form is used to obtain approval from the Office of Oil and Gas Management for:

- (1) Disposing, storing, treating or processing residual waste generated by an unconventional well at the well site where that residual waste was generated; or,
- (2) Processing fluids generated by the development, drilling, stimulation, alteration, operation or plugging of unconventional wells at the well site those fluids were generated; or,
- (3) Processing fluids generated by the development, drilling, stimulation, alteration, operation or plugging of unconventional wells at the well site where all of the fluids are intended to be beneficially used to develop, drill or stimulate a well at that well site; or
- (4) Storing, treating or processing mine-influenced water at the well site where all of the mine-influenced water is intended to be beneficially used to develop, drill or stimulate a well at that well site; or
- (5) Discharging tophole water or precipitation at an unconventional well at the well site where the water was collected at the well site; or
- (6) Evaporation of wastewater generated by an unconventional well at the well site where that wastewater was generated.

If approval is granted under this request, the applicant does not have an obligation to obtain a permit or post a bond under the Solid Waste Management Act in addition to the permit and bond required under the 2012 Oil and Gas Act.

A. PROJECT IDENTIFICATION								
Well Operator			DEP ID/OGO No.		US Well Number(s). (API No.)			
					37- -			
Address					Site Name			
City		State		Zip Code		Site ID No.		ESCGP No.
Telephone No.		Email			County (Well Site)		Municipality (Well Site)	
Consultant/ (if any)		Telephone No.			911 Address			
Email					City		State	Zip Code
Latitude (DD)					Longitude (DD)			
					-			
NOTE: All submittals must include the following information: 1) United States Geological Survey (USGS) 7.5-minute quadrangle map showing the location of the proposed alternative waste management practice 2) Full size set of plan design drawings showing proposed facility dimensions and location relative to existing facilities (Recommend using approved or pending ESCGP drawings or as built drawings with a scale of 1" = 200' or smaller) 3) A detailed project narrative describing the proposed project								
B. REQUEST FOR APPROVAL OF ALTERNATIVE WASTE MANAGEMENT PRACTICES								
Check the appropriate box and complete the applicable section of the form								
☐ For temporary storage, complete Section 1. <i>Temporary Storage</i>								
☐ For storage of production fluids, complete Section 2. <i>Storage of Production Fluids</i>								
☐ For discharge of tophole water or precipitation, complete Section 3. <i>Discharge Requirements</i>								
☐ For onsite disposal of uncontaminated drill cuttings, complete Section 4. <i>Alternate Disposal Practices</i>								
☐ For processing, complete Section 5. <i>Residual Waste Treatment / Processing</i>								

NOTE For processing wastewater generated from oil or gas wells, the approval request is limited to wastewater that is either (1) processed at the well site where it was generated, (2) processed at the well site where it will all be beneficially used to complete a well, or (3) processed at the well site where it will be evaporated.

1. Temporary Storage

To request approval of a modular aboveground storage structure in accordance with 25 Pa. Code Section 78a.56(a)(2), provide the information as requested per section B.1 of the instructions that accompany this form to demonstrate that the storage structure will be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties.

To request approval of an alternative practice for temporary storage in accordance with Section 78a.56(b), provide the information as requested per section B.1. of the instructions that accompany this form that will demonstrate that the proposed alternative practices will provide equivalent or superior protection to the practices identified in 25 Pa. Code Section 78a.56(a).

Attach the Administrative Completeness Checklist for Approval of Alternative Storage Structures(s) checklist as provided in Appendix A.

2. Storage of Production Fluids

To request an alternative practice for storage of production fluids, provide the information as requested per section B.2. of the instructions that accompany this form, that will demonstrate that the proposed alternative practice will provide equivalent or superior protection to the practices identified in 25 Pa. Code Section 78a.57. Include the Administrative Completeness Checklist for Approval of Alternative Storage Structures(s) checklist as provided in Appendix A.

3. Discharge Requirements

To request an alternative practice for discharge of top hole water or precipitation, provide the information as requested per section B.3. of the instructions that accompany this form, that will demonstrate that the proposed alternative practices will provide equivalent or superior protection to the practices identified in 25 Pa. Code Section 78a.60.

4. Alternative Disposal Practices

To request an alternative practice to dispose of uncontaminated drill cuttings at the well site, provide the information as requested per section B.4. of the instructions that accompany this form that will demonstrate that the proposed alternative practice will provide protection equivalent or superior to the practices identified in 25 Pa. Code Section 78a.61. Describe the proposed alternative practice for the type of waste material being disposed, including any additives/processes to be used as part of the alternative practice. Identify any waste stream that is created from the alternative waste disposal practice and describe how this waste material will be processed and/or disposed.

5. Residual Waste Treatment / Processing

NOTE: In accordance with 25 Pa. Code § 78a.58(d), an operator processing fluids or drill cuttings generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells shall develop an action plan specifying procedures for monitoring for and responding to radioactive material produced by the treatment processes, as well as related procedures for training, notification, recordkeeping and reporting. The action plan shall be prepared in accordance with the Department's Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 250-3100-001, as amended and updated, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

Check the appropriate box or boxes that best describe the planned processing practices.

- ☐ Processing wastewater generated at the well site
- ☐ Processing of wastewater to be beneficially used to complete a well at the well site
- ☐ Evaporation of wastewater at the well site
- ☐ Processing drill cuttings
- ☐ Onsite liner processing (washing and/or shredding)
- ☐ Other onsite processing and/or treatment of residual waste or regulated substances

- 1) Provide a narrative description and schematic for each activity checked above in Section 5. Include type of treatment; desired outcome; facility design; and methodology, including a schematic of the treatment train. Use additional pages if necessary.
- 2) Provide the well operator's or responsible person's name, address and contact information, or if using a company/contractor for the processing facility, also include the contractor's name, address, contact person, and contact information.
- 3) For processing of wastewater, approval requests are limited to wastewater processing (1) fluids generated by the development, drilling, stimulation, alteration, operation or plugging of the wells at the well site where the fluids were generated, and/or (2) at the well site where all the fluid is intended to be beneficially used to develop, drill or stimulate a well.

If approval is granted, the following records demonstrate compliance with the approval: (1) the types and amounts of waste processed/treated, (2) the specific locations where the processed/treated waste was generated, (3) the specific locations where the processed/treated waste was beneficially used to complete a well, and (4) the amount beneficially used to complete a well at each well location. If wastewater processing/treatment generates any additional waste(s) (liquid or solid), records should also be maintained by the operator documenting the method and location of handling, storage, processing, treatment, characterization and disposal site of such additional waste(s) to demonstrate compliance with the approval. Attach Safety Data Sheets for any chemicals used for processing or treating wastewater.
- 4) For evaporating wastewater, approval requests are limited to wastewater at the well site where it was generated. An operator seeking to evaporate wastewater that was not generated at the well site must obtain approval under the Solid Waste Management Act and may not be authorized through this form request.

If the evaporator is to be used during the production phase of well development, landowner consent is required, see 25 Pa. Code § 78a.65(a)(1)(iii).

If approval is granted, the following records demonstrate compliance with the approval (1) the types and amounts of wastewater evaporated, (2) the specific oil & gas wells (API #s) the wastewater was generated, (3) the specific locations (well site name and SITE ID #) where the wastewater was generated, and (4) the amount and location of where concentrated wastewater was stored or disposed offsite. If wastewater processing/treatment generates any additional waste(s) (liquid or solid), records should also be maintained by the operator documenting the method and location of handling, storage, processing, treatment, characterization and disposal site of such additional waste(s) in accordance of 25 Pa. Code Chapter 287 to demonstrate compliance with the approval.
- 5) For processing drill cuttings, approval requests are limited to processing drill cuttings at the well site where they were generated. If approval is granted, the following records demonstrate compliance with the approval: (1) the types and amounts of waste processed, (2) the specific location where the processed waste was generated, (3) the specific locations where it is beneficially used, if applicable, and (4) the permit number and latitude/longitude of the disposal location. Attach Safety Data Sheets for any chemicals used for processing drill cuttings.
- 6) For processing synthetic liners (ie. washing and/or shredding) approval requests are limited to activities at the well site where the synthetic liner was installed. Describe the process for washing and/or shredding such liners. Attach Safety Data Sheets for any chemicals used for processing liners.
- 7) For "Other" onsite processing or treatment of residual waste or regulated substances, approval requests include but not limited to:

(1) Using additives (e.g., biocides, oxidizers, cleaning agents, odor control) to treat or process the contents of well development impoundments, tanks, series of tanks or other storage structures approved by the Department provide a description of the type of waste and the additive(s) used. Attach Safety Data Sheets for the additives used. Maintain all liners so that the physical and chemical characteristics of the liner are not adversely affected by interaction with the waste and additive(s) and so that the liner is resistant to physical, chemical, and other failure(s) during installation and use.

(2) Processing residual waste streams (e.g., sludges, solids, liquids) remaining after the processing or handling of residual waste from the development, drilling, stimulation, alternation, operation or plugging of oil or gas wells at the well site.

If approval is granted, the following records demonstrate compliance with the approval (1) the types and amounts of residual waste and/or regulated substances processed or treated, (2) the specific locations where the processing or treatment occurred, (3) If the processing or treatment generates any additional Solid Waste streams (liquid or solid), records must also be maintained by the operator documenting the method and location of handling, storage, processing, treatment, characterization and disposal site of such additional waste(s). Such records shall be provided to DEP upon request. Attach Safety Data Sheets for any chemicals used for "Other" processing under this subsection.

C. PREPAREDNESS, PREVENTION AND CONTINGENCY PLAN (PPC) VERIFICATION

NOTE: An operator must revise their Preparedness, Prevention and Contingency (PPC) Plan to implement changes to the practices identified in the plan as required by 25 Pa. Code Section 78a.55(e). To the extent an operator's PPC Plan does not address the practices approved by the form, the operator must update its PPC Plan to reflect any changes to the plan required to implement the approved practices.

Upon approval will the site specific PPC Plan be revised to reflect any changes resulting from the alternative waste management practices? ☐ YES ☐ NO

D. SIGNATURE OF APPLICANT

Signature Well Operator/Representative		Print or Type Well Operator/Representative Name and Title		Date
		DEP USE ONLY		
☐ Approved ☐ Denied		Conditions ☐ YES, see below or attached. ☐ NO		Date
DEP Representative Signature				
Authorization No.			Date	
Conditions				



REQUEST FOR APPROVAL OF ALTERNATIVE WASTE MANAGEMENT PRACTICES INSTRUCTIONS (Unconventional Operations Only)

The following instructions are designed to assist the applicant in properly completing the ***Request for Approval of Alternative Waste Management Practices, form 8000-PM-OOGM0071AU***. Please type or print clearly when completing the form. If the information requested involves more than the space allows, copy the form and append additional required information. Use this form to request approval of alternative waste management practices in any manner other than those provided in 25 Pa.Code Sections 78a.56 through 78a.63. Submit this form along with all of the necessary documentation. Label each attachment with the applicant's name and the information item to which it refers. The applicant should be the well operator or owner only. If a contractor is used for these activities, the applicant/operator should list the subcontractor's name, address, contact person, and contact information in a cover letter or narrative of the appendix submitted with this approval request.

Request for Approval of Alternative Waste Management Practice, form 8000-PM-OOGM0071AU

- Submit a completed form to request approval for an initial approval of alternative waste management practices.

NOTE: This form is used to obtain approval from the Office of Oil and Gas Management for:

- (1) Disposing, storing, treating or processing residual waste generated by an unconventional well at the well site where that residual waste was generated; or,
- (2) Processing fluids generated by the development, drilling, stimulation, alteration, operation or plugging of unconventional wells at the well site those fluids were generated; or,
- (3) Processing fluids generated by the development, drilling, stimulation, alteration, operation or plugging of unconventional wells at the well site where all of the fluids are intended to be beneficially used to develop, drill or stimulate a well at that well site; or
- (4) Storing, treating or processing mine-influenced water at the well site where all of the mine-influenced water is intended to be beneficially used to develop, drill or stimulate a well at that well site; or
- (5) Land applying precipitation from uncontaminated secondary containment used during production phase of well(s); or,
- (6) Evaporation of wastewater generated by an unconventional well at the well site that wastewater was generated.

If approval is granted under this request, the applicant does not have an obligation to obtain a permit or post a bond under the Solid Waste Management Act in addition to the permit and bond required under the 2012 Oil and Gas Act.

Alternate waste management practices are only approved for the waste streams produced from or beneficially used on the oil and gas wells listed on the Request For Approval Of Alternate Waste Management Practices form 8000-PM-OOGM0071AU that satisfy the conditions of 58 Pa.C.S. Section 3273.1 (relating to solid waste). Use of the same Approved Alternate Waste Management Practices for any additional oil and gas wells located at the same well site or other well sites need to be approved by submitting a Request For Approval of Previously Approved Alternate Waste Practices form 8000-PM-OOGM0071BU for those wells not listed on the original Request For Approval Of Alternate Waste Management Practices form 8000-PM-OOGM0071AU.

A. PROJECT IDENTIFICATION

Provide the requested information that identifies the owner and project site where alternative waste management practices will be utilized. The operator is not required to list a consultant.

B. REQUEST FOR APPROVAL OF ALTERNATIVE WASTE MANAGEMENT PRACTICES

Check the box or boxes corresponding to the alternative waste management practice(s) to be employed.

1. Temporary Storage

Operators must contain regulated substances and wastes used at or generated at a well site in a tank, or series of tanks or other approved storage structures approved by the Department of Environmental Protection (DEP) in accordance with the requirements in 25 Pa. Code Section 78a.56(a). Under 25 Pa. Code Section 78a.56(b), operators may request use of practices other than those specified in 25 Pa. Code Section 78a.56(a). Use this form to submit this request and to demonstrate that the proposed alternate practices provide equivalent or superior protection.

Pursuant to 25 Pa. Code Section 78a.56(a)(2), modular aboveground storage structures that exceed 20,000 gallons capacity may not be utilized to store regulated substances without prior Department approval. Use this form to submit this request and to demonstrate that the proposed storage structure will comply with the requirements in 25 Pa. Code Section 78a.56(a), including that the storage structure will be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties pursuant to 25 Pa. Code Section 78a.56(a)(6).

To request approval of an alternative practice or other modular aboveground storage structure, applicants should enclose Appendix A Checklist for Requests for Modular Aboveground Storage Structure(s)/ Alternate Temporary Storage Structure(s) (Checklist). The Checklist is provided to assist operators requesting approval of a modular aboveground storage structure or an alternate temporary storage practice provide the information the Department has determined may be needed to evaluate submittals.

Plan Submittals

P1. Location Map with latitude and longitude of approximate center of well pad on a USGS 7.5 minute quadrangle map.

P2. Site plan with temporary storage structure(s) clearly shown, pre-development and existing contours, loading/offloading areas, cut/fill slope delineations called out and dimensions provided from temporary storage structure to edges of pad and base or top of slopes.

P3. Cross sectional view of temporary storage structure(s), cut/fill slopes dimensioned – cross section(s) to be taken along any critical axis, i.e. about line from center of structure through minimum distance to base or top of slope.

P4. Standard Operating Procedures

***Site plan and section sheets should be sealed by a professional engineer registered in Pennsylvania to confirm the information contain therein has been prepared under their direction and control in so much as it has been reviewed by said engineer to be based upon verifiable and accurate information and in conformity with accepted engineering standards.**

Engineering Submittals

E1. Geotechnical investigation/analysis data (core boring, soil density, depth to groundwater), from ESCGP, if applicable, representative of subsurface conditions at or near the proposed location of temporary storage structure(s).

E2. Storage structures(s) structural stability analysis signed and sealed by a licensed professional engineer to include manufacturer's specifications.

E3/E4. Storage structure(s) foundation stability analysis, signed and sealed by a licensed professional engineer – particularly to assess the safe design of a human-made or natural slopes. In general, a target design safety factor of 1.5 should be achieved by completing a limit equilibrium analysis, however, based on engineering judgement a minimum design safety factor of 1.25 can be used when failure of the slope and/or storage structure(s) will not adversely impact life-safety, surface water and/or wetlands. For storage structure(s) located a distance greater than the recommended minimum setback at the base of a cut slope as provided in Table 16.1 of the Pennsylvania DEP Erosion and Sedimentation Pollution Control Program Manual, or for fills where the storage structure(s) induces no vertical or lateral load within fill material, provide a general statement regarding the maximum bearing load of the structure(s) and adequacy of the soil foundation within the structure footprint.

- E5. Volume calculations demonstrating total vs. usable volume (assuming 2' freeboard).
- E6. Volume calculations demonstrating secondary containment is capable of handling 110% of the volume of the largest primary containment unit.
- E7. Volume calculations correlating volume vs. measurement (foot) markings storage structure(s).
- E8. Supplement the volume calculations and structural and stability analyses with a signed, sealed letter from professional engineering licensed which provides the following information:
 - a. Height, width, and diameter of the storage structure(s)
 - b. Total number of each unique component of the structure(s) which are essential to its overall structural integrity. This should include any component(s) included in the analysis.
 - c. Total vs. usable volume
 - d. Volume contained at each foot of height as marked on storage structure(s) (table format in gallons and barrels)
 - e. Volume of secondary containment vs. max volume of largest primary containment unit

In addition, the letter should state that the temporary storage structure(s):

- f. Has been determined to be structurally adequate based on engineering analysis (cite methodology, if applicable)
- g. Has been determined to be stable in the location as shown on the site plan (cite date, drawing number) with an acceptable factor of safety (cite safety factor(s)) based on the soil parameters as determined from the geotechnical analysis (cite date, engineering firm and report number, if applicable)

Mechanical/Environmental submittals

- M1. Installation plan proposed by the Manufacturer or Installer that describes required installation activities and identifies critical phases, processes, and techniques.
- M2. Liner material data (liner thickness > 30 mil, coefficient of permeability of liner no greater than 1×10^{-10} cm/s).
- M3. Statement from certified testing laboratory confirming liner materials are compatible with impounded materials. Include sample results for all parameters tested.
- M4. Secondary containment details, e.g., berm cross sectional details.
- M5. Type of fluid(s) (e.g., flowback, production, water-based drilling mud, recycled wastewater, etc.) and source(s).
- M6. Schematic or diagram showing movement of fluids to the drill pad staging area from storage structure(s) and from the drill pad staging area to the storage structure(s) during planned activities, when using well development pipelines –including details regarding any transference of fluids within drill pad limits as well and any secondary containment/berms to be used at locations of transference.
- M7. Proposed inlet and outlet check valves, air gaps at facility connection piping and loading/ offloading areas.
- M8. Safety Data Sheets with the product's common name(s) and Chemical Abstracts Service Registry Number(s).
- M9. Explanation as to how freeboard is to be monitored/maintained for open topped structures.
- M10. Leak detection system/sensor details.
- M11. Means/methods of protection for unauthorized acts of third parties, i.e. fence, locking mechanism, etc. data.
- M12. Deconstruction, cleaning and disposal procedures proposed by Manufacture or Installer.
- M13. Master Containment and PPC plans updated for proposed practices.
- M14. Signage type and language for identifying contents and appropriate warnings.

2. Storage of Production Fluids

Operators shall collect the brine and other fluids produced during operation of the well in a tank or a series of tanks, or other device approved by the Department for subsequent disposal or reuse in accordance with the requirements in Section 78a.57. Use this form to request use of alternate storage practices other than those specified in Section 78a.57 that provide equivalent or superior protection to the requirements in Section 78a.57.

To ensure that the necessary information is included for the Department to evaluate your request, please enclose Appendix A: Administrative Completeness Checklist for Approval of Alternate Storage Structure(s) with Request for Approval of Alternative Waste Management Practices Form 8000-PM-OOGM0071AU.

Plan Submittals

P1. Location Map with latitude and longitude of approximate center of well pad on a USGS 7.5 minute quadrangle map.

P2. Site plan with alternate storage structure(s) clearly shown, pre-development and existing contours, loading/offloading areas, cut/fill slope delineations called out and dimensions provided from storage structure to edges of pad and base or top of slopes.

P3. Cross sectional view of alternate storage structure(s), cut/fill slopes dimensioned – cross section(s) to be taken along any critical axis, i.e. about line from center of structure through minimum distance to base or top of slope.

P4. Standard Operating Procedures

***Site plan and section sheets should be sealed by a professional engineer registered in Pennsylvania to confirm the information contained therein has been prepared under their direction and control in so much as it has been reviewed by said engineer to be based upon verifiable and accurate information and in conformity with accepted engineering standards.**

Engineering Submittals

E1. Geotechnical investigation/analysis data (core boring, soil density, depth to groundwater), from ESCGP, if applicable, representative of subsurface conditions at or near the proposed location of storage structure(s).

E2. Storage structure(s) structural stability analysis signed and sealed by a licensed professional engineer to include manufacturer's specifications.

E3/E4. Storage structure(s) foundation stability analysis, signed and sealed by a licensed professional engineer – particularly to assess the safe design of a human-made or natural slopes. In general, a target design safety factor of 1.5 should be achieved by completing a limit equilibrium analysis, however, based on engineering judgement a minimum design safety factor of 1.25 can be used when failure of the slope and/or storage structure(s) will not adversely impact life-safety, surface water and/or wetlands. For storage structure(s) located a distance greater than the recommended minimum setback at the base of a cut slope as provided in Table 16.1 of the Pennsylvania DEP Erosion and Sedimentation Pollution Control Program Manual, or for fills where the storage structure(s) induces no vertical or lateral load within fill material, provide a general statement regarding the maximum bearing load of the structure(s) and adequacy of the soil foundation within the structure footprint.

E5. Volume calculations demonstrating total vs. usable volume.

E6. Volume calculations demonstrating secondary containment is capable of handling 110% of the volume of the largest primary containment unit.

E7. Volume calculations correlating volume vs. measurement (foot) markings storage structure(s).

E8. Supplement the volume calculations and structural and stability analyses with a signed, sealed letter from professional engineering licensed which provides the following information:

- a. Height, width, and diameter of the storage structure(s)

- b. Total number of each unique component of the structure(s) which are essential to its overall structural integrity. This should include any component(s) included in the analysis.
- c. Total vs. usable volume
- d. Volume contained at each foot of height as marked on storage structure(s) (table format in gallons and barrels)
- e. Volume of secondary containment vs. max volume of largest primary containment unit

In addition, the letter should state that the storage structure(s):

- f. Has been determined to be structurally adequate based on engineering analysis (cite methodology, if applicable)
- g. Has been determined to be stable in the location as shown on the site plan (cite date, drawing number) with an acceptable factor of safety (cite safety factor(s)) based on the soil parameters as determined from the geotechnical analysis (cite date, engineering firm and report number, if applicable)

Mechanical/Environmental submittals

M1. Installation plan proposed by the Manufacturer or Installer that describes required installation activities and identifies critical phases, processes, and techniques.

M2. Liner material data (liner thickness $\geq$ 30 mil, coefficient of permeability of liner no greater than 1×10^{-10} cm/s).

M3. Statement from certified testing laboratory confirming liner materials are compatible with impounded materials. Include sample results for all parameters tested.

M4. Secondary containment details, e.g., berm cross sectional details.

M7. Proposed inlet and outlet check valves, air gaps at facility connection piping and loading/ offloading areas.

M8. Safety Data Sheets with the product's common name(s) and Chemical Abstracts Service Registry Number(s).

M10. Leak detection system/sensor details.

M11. Means/methods of protection for unauthorized acts of third parties, i.e. fence, locking mechanism, etc. data.

M13. Master Containment and PPC plans updated for proposed practices.

M14. Signage type and language for identifying contents and appropriate warnings.

3. Discharge requirements

Under 25 Pa. Code § 78a.63a, an operator may request to manage waste on a well site using alternative waste management practices. This includes request to discharge precipitation collected in uncontaminated secondary containment not during well drilling or completion operations. Such requests must demonstrate the practice provide equivalent or superior protection to the requirements in 25 Pa. Code § 78a.60(b).

Request Submittals:

- 1) Request for Approval of Alternative Waste Management Practices form 8000-PM-OOGM0071AU
- 2) Project narrative describing the proposed discharge plan.
- 3) A United States Geological Survey (USGS) 7.5-minute quadrangle map showing well site and discharge area.
- 4) Latitude and longitude location or GPS coordinates of the discharge area.
- 5) Demonstrate that the requested practice provides equivalent or superior protection to the requirements of Chapter 78a.60(b).

If tophole water/precipitation in a pit or precipitation in uncontaminated secondary containment is unable to meet the requirements of 25 Pa. Code Section 78a.60(b) (2) or (4), the operator may submit a treatment

plan to the Department for approval prior to discharge of treated water to the land surface. The treatment plan should be submitted using the Request for Approval of Alternative Waste Management Practices, Form 8000-PM-OOGM0071AU seeking approval for "Other onsite processing or treatment of residual waste or regulated substances."

4. Alternative Disposal Practices for Uncontaminated Drill Cuttings

Trash, land clearing waste, or other waste that was not generated by drilling or production of an oil or gas well may not be disposed of on the well site.

An operator may request approval to use solidifiers, dusting, unlined pits, attenuation, or other alternative practices for the disposal of uncontaminated drill cuttings pursuant to 25 Pa. Code Section 78a.61(d).

To obtain approval for these alternative practices to dispose of uncontaminated drill cuttings, operators must demonstrate that the requested practice provides equivalent or superior protection to the requirements in 25 Pa. Code Section 78a.61

Request Submittals:

- 1) Request for Approval of Alternative Waste Management Practices, form 8000-PM-OOGM0071AU
- 2) Project narrative describing the proposed alternative disposal plan
- 3) A United States Geological Survey (USGS) 7.5-minute quadrangle map
- 4) Latitude and longitude location or GPS coordinates of the disposal site
- 5) Attach Safety Data Sheets with the product's common name(s) and Chemical Abstracts Service Registry Number(s) for additives used.
- 6) Demonstrate that the requested practice provides equivalent or superior protection to the requirements of 25 Pa. Code Section 78a.61.

5. Residual Waste Treatment/Processing

An operator may request approval to treat and/or process residual waste on the well site. In accordance with 25 Pa. Code § 78a.58(b)(1)-(3), approval is not required for the following activities conducted at a well site: (1) mixing fluids with freshwater, (2) aerating fluids, and (3) filtering solids from fluids. For treating/processing wastewater generated from unconventional wells, the approval request is limited to fluids generated by the development, drilling, stimulation, alteration, operation or plugging of unconventional wells processed at (1) the well site where the fluids were generated, or (2) the well site where all the fluid is intended to be beneficially used to develop, drill or stimulate a well. Also, sludges, filter cake or other waste remaining after the processing or handling of fluids need to be characterized pursuant to 25 Pa. Code Section 78a.58(h).

In accordance with 25 Pa. Code § 78a.58(d), an operator processing fluids or drill cuttings generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells shall develop an action plan specifying procedures for monitoring for and responding to radioactive material produced by the treatment processes, as well as related procedures for training, notification, recordkeeping and reporting. The action plan shall be prepared in accordance with the Department's *Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 250-3100-001, as amended and updated, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

In accordance with 25 Pa. Code § 78a.58(e), an operator may request to process drill cuttings only at the well site where those drill curing were generated and must demonstrate that the processing operation will not result in pollution of land or waters of the Commonwealth.

Under 25 Pa. Code § 78a.63a, an operator may request to add substances, including chemicals, to a tank on the well site to treat its contents for beneficial use or disposal. To demonstrate that treating residual waste in tanks provides equivalent or superior protection, the operator should demonstrate adequate containment and that treatment chemicals used are compatible with the tank liner.

Under 25 Pa. Code § 78a.63a, an operator may request to wash and/or shred synthetic liners used for storage and secondary containment at the well site. Approvals are limited to activities on the well site where the synthetic liner materials were used. To demonstrate that this practice provides equivalent or superior protection, requests should include a description of the process for washing and/or shredding such liners. Sweeping and/or cutting liners into smaller sections prior to disposing of them is not considered processing.

Wastewater and solids generated from the handling, sweeping, washing, cutting and/or shredding of liners are considered residual waste.

Request Submittals:

- 1) *Request for Approval of Alternative Waste Management Practices*, form 8000-PM-OOGM0071AU.
- 2) Project narrative describing the proposed residual treatment/processing
- 3) A USGS 7.5-minute quadrangle map showing the location of the proposed residual waste treatment/processing.
- 4) Name, address, permit number, latitude and longitude location or GPS coordinates of the disposal site.
- 5) When synthetic flexible liners are used in the treatment/processing process, demonstrate that the physical and chemical characteristics of the liner are not adversely affected by the waste, chemical additives or the process.
- 6) Identify the waste stream, its estimated volume, handling, and disposal plan.
- 7) Attach Safety Data Sheets with the product's common name(s) and Chemical Abstracts Service Registry Number(s) for additives used.
- 8) Attach current Radiation Protection Action Plan.

Additional Information for Request Submittals for Evaporation of wastewater:

- 9) Request for Determination (RFD) from PA DEP Bureau of Air Quality.
- 10) Air dispersion data, modeling and / or calculations of radionuclides from evaporators.
- 11) Landowner Consent for Storing Drilling Supplies and Equipment, form 8000-FM-OOGM0144U (For production phase of well operation)

C. PREPAREDNESS, PREVENTION AND CONTINGENCY PLAN (PPC) VERIFICATION

NOTE: An operator must revise its PPC Plan prior to implementing changes to the practices identified in the plan as required in Section 78a.55(e). To the extent an operator's PPC Plan does not address the practices approved by the Request for Approval of Alternative Waste Management Practices form, the operator must update its PPC Plan to reflect any changes to the plan required to implement the approved practices.

D. SIGNATURE OF APPLICANT

Provide the signature of the operator, name, title, date of signature and authorization number, and date of the authorization in the spaces provided.

Submit this form and any additional necessary documents through DEPGreenPort located at www.greenport.pa.us/. Instructions on specific oil and gas electronic applications can be accessed at <http://www.dep.pa.gov/OG-submit>.

**APPENDIX A****CHECKLIST**

**FOR REQUESTS FOR MODULAR ABOVEGROUND STORAGE STRUCTURES
OR ALTERNATE STORAGE STRUCTURE(S)
(UNCONVENTIONAL OPERATIONS ONLY)**

WELL OPERATOR NAME:		Applicant Check ✓ if Included	Official Use Only
DEP ID/OGO NO.:		WELL PAD NAME AND NO.:	
Please use this checklist and submit with form 8000-PM-OOGM0071AU if requesting use of a modular aboveground storage structure an alternate storage structure(s) as per §78a.56 or §78a.57.			
PLAN SUBMITTALS			
P1.	Location map with Latitude and Longitude of approximate center of well pad on a USGS 7.5-minute quadrangle map.	☐	☐
P2.	Site plan with alternate storage structure(s) clearly shown, pre-development and existing contours, loading/offloading area, cut/fill slope delineations called out and dimensions provided from storage structure(s) to base or top of slopes and edges of pad.	☐	☐
P3.	Cross sectional view of alternate storage structure(s) with cut/fill slopes dimensioned. (Note: Cross section(s) to be taken along any critical axis, i.e. approximate line from center of structure through minimum distance to base or top of slope.)	☐	☐
P4.	Standard Operating Procedures	☐	☐
ENGINEERING SUBMITTALS			
E1.	Geotechnical investigation/analysis data (core boring, soil density, depth to groundwater), from ESCGP if applicable, representative of subsurface conditions at or near the proposed location of alternate storage structure.	☐	☐
E2.	Structural stability analysis of alternate storage structure(s) signed and sealed by a licensed professional engineer with manufacturer's specifications included.	☐	☐
E3.	Does the alternate storage structure(s) reside less than the recommended minimum setback distance in Table 16.1 of the E&S Pollution Control Program Manual (Doc. No. 363-2134-008) for a cut slope and/or does system induce vertical or lateral load into a human-made or natural slope? ☐ Yes ☐ No If Yes, see Item E4. If No, mark "N/A" for Item E4 and continue to Item E5.		
E4.	Limit equilibrium analysis of slope demonstrates factor of safety of minimum 1.5 but not less than 1.25 (based on sound, engineering judgement with consideration of the surrounding features).	☐ N/A	☐
E5.	Volume calculations demonstrating total vs. usable volume (assuming 2' freeboard).	☐	☐
E6.	Volume calculations demonstrating secondary containment is capable of handling 110% of the volume of the largest primary containment unit.	☐	☐
E7.	Volume calculations correlating volume vs. measurement (foot) markings storage system.	☐	☐
E8.	Supplemental letter signed and sealed by a licensed professional engineer with following statements:	☐	☐
	a. Height, width and diameter of structure(s)	☐	☐
	b. Total number of each unique component of the structure(s) which is essential to its overall structural integrity (i.e. any component included in the analysis)	☐	
	c. Total volume vs. usable volume	☐	
	d. Chart of volume at each foot marking on storage structure(s)	☐	
	e. Volume of secondary containment vs. max volume of primary structure	☐	
	f. Structure(s) is(are) deemed sound based on engineering analysis	☐	
	g. Structure(s) is(are) stable based on location(s) shown on site plan	☐	

MECHANICAL/ENVIRONMENTAL SUBMITTALS			
M1.	Installation plan proposed by manufacturer or Installer that describes required installation activities and identifies critical phases, processes, and techniques.	☐	☐
M2.	Liner material information (liner thickness ≥ 30 mil, methodology used to determine coefficient of permeability of liner no greater than 1×10^{-10} cm/s).	☐	☐
M3.	Statement with analytical results confirming liner is compatible, i.e. will not react/deteriorate, while in contact with impounded materials.	☐	☐
M4.	Secondary containment system details, e.g. berm cross sectional details, sump, access areas.	☐	☐
M5.	Type of fluid (i.e. flowback, production, water-based drilling, etc.) and chemical concentration(s), if re-use or impaired wastewater, explain where/how fluids are being generated.	☐	☐
M6.	Schematic or diagram showing movement of fluids to the well site from storage facility and from the well site to the storage facility during planned activities, including details regarding any transference of fluids within well site limits as well and any containment practices to be used at locations of transference.	☐	☐
M7.	Proposed inlet and outlet check valves, air gaps at facility connection piping and loading/ offloading areas.	☐	☐
M8.	Safety Data Sheets.	☐	☐
M9.	Freeboard monitoring and maintenance explanation.	☐	☐
M10.	Leak detection system and sensor details.	☐	☐
M11.	Means and methods of protection from unauthorized acts of third parties, i.e. fence and locking mechanism data.	☐	☐
M12.	Deconstruction, cleaning and disposal procedures proposed by Manufacture or Installer.	☐	☐
M13.	Master Containment and PPC plans updated for proposed practices.	☐	☐
M14.	Signage type and language for identifying contents and appropriate warnings.	☐	☐