



Purpose and Scope

The purpose of this document is to clarify procedures and responsibilities regarding private sewage disposal systems to ensure that sewage tanks and open sumps constructed for temporary work camps within the scope of the DMI EMS:

1. Meet health and safety requirements,
2. Minimize impacts on wildlife, fisheries and forest resources,
3. Do not pollute soils, surface water, and groundwater.
4. Are constructed in a manner that is acceptable to the Private Sewage Chief Inspector/Administrator of Alberta.

This procedure applies to camp sites located on both crown land and private land (with landholder permission).

Temporary work camps are defined as being less than 9 months total duration and less than 25 person occupancy capacity. Any camp not meeting the criteria of 'temporary' may require other methods and/or requirements of the Private Sewage Systems Standard of Practice to be applied.

Procedure

1. Planning for Sewage Storage/Disposal

There are two methods of sewage systems that are acceptable:

- Two – stage septic or sewage holding tanks
- Open sumps

It is at the discretion of the contractor to decide which method best meets their needs given the installation standards outlined below and the constraints present at the camp site.

When planning the location of sewage tanks, the following must be confirmed by the contractor:

- that the tank is located no less than:
 - a. 100 m from any watercourse or water source;
 - b. 1 m from a property line;
 - c. 1 m from a building;
 - d. Outside the buffer of any protected feature.
- that the tank is located and installed to accommodate the removal of sewage by vacuum truck
- that access openings are equipped with a secure lid or cover.
- tank meets or exceeds the requirements of CAN3-B66-M90 standard (Tow - stage)

When planning the location of open sumps, the Interim Agreement dated Dec 04, 2009 from Municipal Affairs (attached) must be adhered to. In addition to this agreement, the following conditions must be met:

- that the sump is located no less than:
 - a. 100 m from any watercourse or water source;
 - b. 30 m from a property line;
 - c. 90 m from a numbered primary or secondary road;
 - d. 100 m down slope from a water well (if present);
- that sumps are designed to the following specifications:
 - fenced on all sides and must be secure and sound at all times until reclamation of the sump.
 - that the bottom of the sump is a minimum 1500mm (5 ft), above the water table
 - that the sump is located away from high traffic or congested areas but accessible to vacuum trucks.





The DMI Forest Resources Supervisor must confirm that the camp location meets the requirements outlined in FR-G014 Temporary Campsites Guidelines.

2. Request Variance

If any of the specifications outlined in section 1 cannot be met and/or the camp site does not meet the definition of temporary, the contractor must request a variance. Contractors must submit a written Request for Variance to the Private Sewage Standards to Municipal Affairs.

A Request for Variance must include the following information:

- a. Name and Address of Owner
- b. description of the project the variance is intended to apply to,
- c. identification of the site/location the variance applies to,
- d. identification as an application for variance,
- e. explanation of what a variance is,
- f. code, standard or regulation reference to which the variance is to apply to,
- g. description of the variance being requested,
- h. reason/rational for the variance,
- i. evidence/proof of equal or better safety performance to persons and property,
- j. declaration of understanding,
- k. date of application, and
- l. signature of the owner.

3. Permit Applications

All sewage storage constructed will have a valid permit for all tenure types.

Private Sewage Disposal System Permits fall under the PLUMBING PERMITS category. Permits are available through municipalities that are accredited to administer the Safety Codes Act, and through agencies that provide inspection services on behalf of the province in non-accredited municipalities.

If a municipality is accredited, permits must be obtained by contacting the municipality directly.

If a municipality is non accredited, permits can be obtained through agencies authorized by Alberta Municipal Affairs and Housing to issue permits and provide compliance monitoring.

Further information regarding permits can be found online at: http://municipalaffairs.gov.ab.ca/cp_permit_information_search.cfm

Table 1: Listing of Common Municipalities in the DMI Operating Area

Municipality/ MD	FMA ID	Accredited	Contact
Clear Hills #21	P2D, P02, P1D	NO	Municipal Affairs & Housing
Mackenzie	F1D	YES	Mackenzie County
Northern Sunrise County	P5D, P4D, P3D, S10D, S15D	NO	Municipal Affairs & Housing
Peace #135	P03	NO	Municipal Affairs & Housing
Opportunity	S15D	NO	Municipal Affairs & Housing
Northern Lights	P10D, P03	NO	Municipal Affairs & Housing
Smoky	P01	NO	Municipal Affairs & Housing
Big Lakes	P01	NO	Municipal Affairs & Housing
Town of Manning	P03	NO	Municipal Affairs & Housing
Town of Peace River	P03	NO	Municipal Affairs & Housing





Table 2: Authorized Permitting Agencies for Non Accredited Municipalities

Authorized Agency Name	Phone	Fax
Alberta Permit Pro	1 (780) 455-6363 1-800-461-8706	(780) 447-2373 1-800-292-6754
Superior Safety Codes Inc.	1 (780) 489-4777 1-866-999-4777	(780) 489-4711 1-866-900-4711
The Inspections Group Inc.	1 (780) 454-5048 1-866-554-5048	(780) 454-5222 1-866-454-5222

Contractors must complete a [Private Sewage Disposal System Permit Application Form](#) and submit it to the authorized permitting agency. Information needed to complete the form is as follows:

- a. Contractor Information (who is installing the sump) including [Private Sewage ID](#) or Journeyman Plumbers #
- b. Project Location
- c. System Design Criteria
- d. Project Information including reclamation method.
- e. Basic System Drawing – sketch showing location in relation to buildings, distance to water supply and/or surface water bodies, & other pertinent information.

Once the permit application is signed by a Safety Codes Officer, the permit is valid.

4. Other Requirements

The DMI Forest Resources Supervisor will have completed a Request for Temporary Field Authorization (TFA), for camps located on crown land in accordance with FR-G014 Temporary Campsites.

For Private Land sites, the DMI Forest Resources Supervisor will ensure that documentation of consent by the landowner for a temporary camp site is maintained on file (consent can be obtained either through the Forest Resources Supervisor or the Contractor).

5. Construction Pre-work

The DMI Forest Resources Supervisor will conduct a start up meeting with the contractor as per the Project Supervision Procedure (Document FR-G002); using the Operation Start up Meeting Checklist (Form CHK-002) to ensure that all appropriate topics are covered including the conditions given in the Authorization.

Construction on sumps will only commence upon confirmation of a valid Private Sewage Disposal System permit. Proof of a valid permit must be provided to DMI by the contractor at this time. Copies of all associated documentation must be provided to DMI.

6. Construction

Tanks/Sumps are subject to (and must be constructed in accordance with), any conditions outlined in:

- a. TFA or Land owner consent
- b. Permit and
- c. Variance conditions (if applicable).

7. Sump Maintenance

Particularly during warm or unfrozen periods, regular treatment (lime), of sump contents may be necessary for health reasons. Consult the local Health Region for further specific requirements pertaining to open camp sumps.





8. Open Discharge Systems

Open discharge systems are subject to (and must be used in accordance with), the following conditions:

- a. Only to be utilized in conjunction with two stage septic tanks. **Note: Single stage/in-ground holding tanks and open sumps cannot utilize these systems.**
- b. Land owner consent is required on private lands and TFA approval is required for Public Lands prior to utilizing these systems.
- c. Are subject to any conditions outlined in:
 - I. TFA or Land owner consent
 - II. Permit
 - III. Variance Conditions
- d. A system designed to discharge effluent to the surface of the ground shall contain the effluent on the property.
- e. At the point of discharge of effluent to the surface, the soil the effluent is discharged onto shall be protected from erosion.
- f. Discharge to the ground surface shall not be located within:
 - I. 100 m from any watercourse or water source;
 - II. 30 m from a property line;
 - III. 90 m from a numbered primary or secondary road;
 - IV. 100 m down slope from a water well (if present);
 - V. Outside the buffer of any protected feature.

9. Inspections

All tanks or sumps are to be inspected within 30 days of construction by Safety Codes Officer in accordance with permit conditions. Contractors are to submit copies of all reports pertaining to these inspections to DMI.

As per the Project Supervision Procedure (Document FR-G002), the DMI Forest Resources Supervisor will inspect each camp (including the sewage disposal system) at least twice:

- once after initial set up and
- once immediately prior to or upon deactivation.

If an operation will last longer than 1 month, an inspection must be conducted once a month. The results of the inspection are to be recorded on the Industrial Waste, Fuel, and Facility Inspection Report Form (CHK-011). Follow up and corrective action plans are to be reported on that form.

The sewage disposal system will be assessed against the applicable requirements for that installation (i.e. these standards and permit requirements or variance and permit requirements).

During inspections of open sumps check:

- or signs of volume loss due to leaching
- for excess volume
- that fences are secure, sound and enclose all four sides
- that the integrity of berms remains intact.
- that approval conditions are being met (i.e. distance to building, watercourse, etc).

For sumps, all measurements will be taken from the outside of the berm where the side slope of the berm intersects with the natural ground surface.

During inspections of tanks check:

- for signs of leakage
- that access openings are equipped with a secure lid or cover
- that approval conditions are being met (i.e. distance to building, watercourse, etc)





10. Reclamation

The contractor is responsible for the deactivation of the campsite including tank/sump reclamation, once it is no longer required. Tanks/sumps will be deactivated as per the requirements of the TFA issued by SRD and any other requirements outlined in the permit and/or variance.

Tank Reclamation:

- Contents of tank removed and disposed of at an appropriate facility for treatment (copy of the associated waste manifest is to be retained)
- Tank removed and pit filled in
- Fill is mounded to accommodate settling

Sump Reclamation:

If the sump is >75% full, the method of sump reclamation would include:

- sump contents trucked to an appropriate facility for treatment (copy of the associated waste manifest is to be retained)
- sump in filled in and the fill is mounded to accommodate settling.

If the sump is <75% full, the method of sump reclamation would include:

- mix, bury, and cover
- the fill is mounded to accommodate settling.

Special care must be taken when filling in sumps to avoid splashing sump contents beyond the boundaries of the open sump. Any splashing and/or displacement of sump contents beyond the boundaries must be treated as a spill and acted upon immediately.

The DMI Forest Resources Supervisor must be notified by the contractor once the deactivation/reclamation is complete so an inspection can be made.

11. Training and Awareness

Through discussions at safety meetings, ensure that contractor staff are aware of:

- a. The potential health and environmental impacts associated with exposure to, or accidental release of grey water;
- b. The importance of sump monitoring and treatment;
- c. The location of Emergency Response Equipment (including PPE);
- d. Emergency response procedures

Those expected to respond to spills are to be trained in spill response, including PPE requirements.

12. Incident Reporting and Emergency Response

All incidents are to be reported to DMI in accordance with FR-G01 1.

Response to accidental spills or releases will be conducted in accordance with **FR-E001, Accidental Spills or Releases** and DMI FRBU's **Emergency Preparedness and Response Plan**.

Any release of grey water while a camp is occupied should be acted upon immediately.

A release of any substance in any quantity into a watercourse is IMMEDIATELY reportable to DMI.

Suspected sump volume loss by leaching is to be considered as a potential loss to a water body and immediately reported to DMI.





Related Documents

FR-G002	Project Supervision	CHK-001	Planning Start up Meeting Checklist
FR-G011	Incident/Accident Reporting	CHK-002	Operations Start up Meeting Checklist
FR-G014	Temporary Camps	CHK-003	Silviculture Start up Meeting Checklist
FR-E001	Accidental Spills or Releases	CHK-011	Industrial Waste, Fuel, and Facilities Inspection Report

REVISION HISTORY

Original issued:	Unknown	Author: Unknown
Revision 1:	May 5, 2005	Author: EMS Coordinator
Revision 1.2:	August 14, 2006	Author: EMS Coordinator
Revision 1.3:	January 17, 2008	Author: EMS Coordinator
Revision 1.4:	January 07, 2009	Author: EMS Coordinator

APPROVAL:

Approved:	S.ELKINS	EMS Coordinator – Forest Resources
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MUNICIPAL AFFAIRS/ASRD INTERIM AGREEMENT

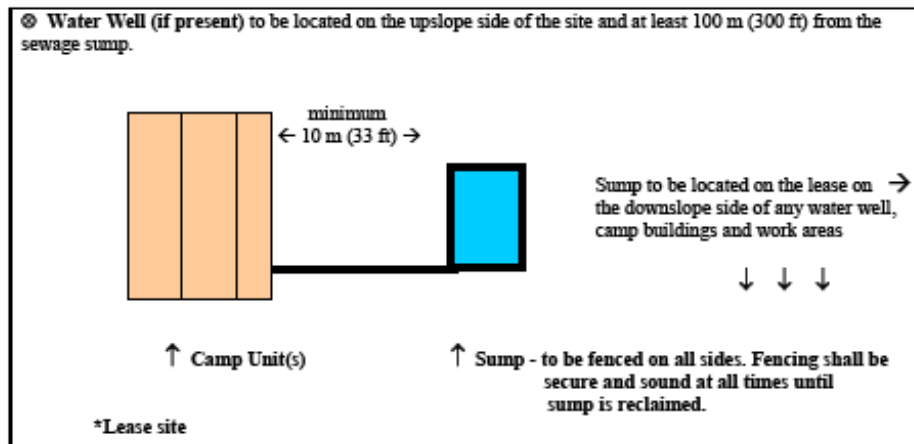
TEMPORARY WORK CAMPS and SEWAGE TREATMENT SEWAGE SUMPS

This may be accepted as a sewage system for a less than 9 month total duration and less than 25 person occupancy capacity or 5.68 cubic meters per day volume (1250 gallons). Larger camps may require other methods and or requirements of the Private Sewage Systems Standard of Practice to be applied.

Sewage sumps (wastewater lagoons) may be accepted with the clearances shown here as interim measures to provide consistency for sewage treatment at work camps while the regulatory bodies and industry stakeholders are developing more specific guidelines.

The sump must be constructed in soils that control seepage (*see notes below) and so that it does not present a risk to public health or cause degradation of the environment.

Crown Lands managed by SRD surround the lease site



- A sewage sump shall not be located within 100 m (300 ft) of a water well, river, stream, creek, or lake;
- The bottom of the sewage sump shall maintain a vertical separation to the water table (seasonally saturated soils as indicated by soil mottling or gleying) of at least 1500 mm (5 ft). Test pits or bore holes are required.
- * Soils must have a minimum of 30% clay content to allow the use of a wastewater sump. A soil texture analysis conducted by an accredited lab of the samples taken on site at appropriate depths is required to confirm clay content and the soils ability to control seepage. Where seepage from sump cannot be controlled because of unsuitable soils (less than 30% clay content or lenses of permeable soil exist) a sewage holding tank or a sewage treatment system shall be installed.
- Maximum depth 8 feet below grade if separation to saturated soil is maintained. Minimum side slope 1:1. Provide a berm of sufficient elevation around the sump to prevent surface water from entering sump.
- The lagoon/sewage sump must have the capacity to store the wastewater generated during the life of the camp. The permit application needs to include an estimate of total wastewater volume and show the sump dimensions have the capacity to store the wastewater. A plan for periodic hauling of wastewater from the lagoon may be acceptable.
- At end of use, an appropriate method of reclamation will be used. The preferred method would include the sump contents being hauled to an appropriate facility for treatment. Accepted methods also include mix-bury or land spreading and incorporation of the wastewater lagoon contents into the soil. The method of reclamation should be specified at time of permit application.

This interim guidance was developed jointly by representative from the departments of Alberta Municipal Affairs, Alberta Environment, Sustainable Resource and Development, and Alberta Health and Wellness in December of 2001. Additional detail has been added in subsequent updates.

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