

# Draft Directive 020 (released November 2020)

## Stakeholder Feedback and AER Response



Stakeholder Feedback – Issue	Stakeholder	AER Response
<p>EPAC recommends that further consultation be undertaken to identify additional formations / pools for routine commingled abandonment. Accordingly, EPAC is supportive of the work already completed and is of the view that a risk-based review of additional formations and pools for inclusion is merited.</p>	<p>EPAC</p>	<p>We have commenced a second scientific investigation to review additional geological strata and hydrocarbon pools for routine commingled abandonment. This evaluation commenced in July 2020, and uses the previous studies’ methodologies and approaches that adopted a risk-based determination of whether commingled abandonment can occur in select regions of Alberta. We will continue to notify and engage with industry by offering updates on progress, results, and anticipated timeframes related to future regions that are eligible or ineligible for commingled abandonment.</p>
<p>Wells within the Development Entity 1 and MU-7490 commingling orders with perfs below the Base of Groundwater Protection should be considered sufficiently low risk to be eligible for ‘Routine Commingling Abandonment’.</p>	<p>Ovintiv</p>	<p>Wells within Development Entity 1/1A and Commingled Order No. MU-7490 are part of our second scientific investigation to review additional geological strata and hydrocarbon pools for routine commingled abandonment. A component of this evaluation includes further quantifying the level of risk and consequence from commingled abandonment in more shallow geological systems that are in close proximity to the base of groundwater protection.</p>

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<p>Section 5.3.2, Wells With a Cemented Liner</p> <p>Option 1 – Setting a Permanent Bridge Plug</p> <p>Throughout the directive there is reference to ptest to 7Mpa for 10min. Should the revision indicate “surface pressure” to 7Mpa for 10min? Basically, if it is 7Mpa at surface, the pressure at the bridge plug will be greater due to Hydrostatic Pressure.</p>	<p>City of Medicine Hat</p>	<p>The objective of the 10 minute 7 MPa pressure test on the downhole plug is to determine whether or not it is leaking. As the pressure test that is conducted is hydraulic, a total pressure of 7 MPa is considered adequate to determine this.</p> <p>A concern with higher test pressure is that it may induce higher cyclic stresses in the wellbore leading to unintended consequences, a few of which are casing integrity issues and microchannels in the annulus leading to surface casing vent flow (SCVF).</p> <p>Due to the reasons identified above, we are not making the recommended change. We may consider this recommendation at a future time with more supporting information.</p>
<p>Section 1.4, Overview</p> <p>As there is potentially an increase in shallow gas abandonments. Wellbores 75+ years old should be classified as non-routine, due to cementing techniques back in the day when they did not circulate to surface. More or less a pancake style of cementing. Also, casing could be deteriorate and weak as well as many casing strings landed. (i.e. 3-5 casing strings. All this comes from experience working in the Medicine Hat area over the last 20 years.</p>	<p>City of Medicine Hat</p>	<p>Current <i>Directive 020</i> well abandonment requirements include wellbore integrity concerns that are related to well age (for example, low annular cement top due to cementing practices of the time). Any wellbores older than 75 years that exhibit wellbore integrity issues that cannot be addressed by the methods specified in <i>Directive 020</i> will not pass the current requirements for “routine” abandonments and will require an AER “nonroutine” approval. This approach ensures that these wells are abandoned in an acceptable manner with adequate risk mitigation in place.</p>

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<p>CAPP believes that there is an opportunity to expand upon the proposed changes and include a transparent and defined risk framework to enable additional routine commingled abandonment for those wells that have not yet been evaluated. To this end, CAPP recommends that routine commingled abandonment be expanded to cases where porous and permeable zones below the base of groundwater protection, and if not already commingled in offset wells, do not require individual isolation if: the zones in question can be demonstrated to be in natural communication; be part of a single formation and/or pool; contain similar reservoir fluid compositions; are sufficiently depleted and reservoir pressures are similar. If these conditions are not met, a licensee may still apply for a non-routine risk-based abandonment based on an assessment of zones proposed for commingled abandonment.</p>	<p>CAPP</p>	<p>Our scientific investigation published in 2019 provided a first-order determination of risk level and consequence for all geological strata in Alberta. The evaluation also included a more quantitative risk methodology to be undertaken in scenarios that involve thousands of wells with potential to impact nonsaline groundwater and resource conservation.</p> <p>Our second scientific investigation to review additional geological strata and hydrocarbon pools that started in July 2020 will assess to what degree additional regions for routine commingled abandonment can occur under specific subsurface conditions. This evaluation must consider the full extent of hydrocarbon pools and associated wells in order to satisfy long-term environmental outcomes and preservation of resources for future development. The results of the second investigation will be publicly available upon completion. We meanwhile continue to accept nonroutine abandonment of commingled production wells especially for low-risk and low-consequence intervals defined in 2019.</p>
<p>Limited to the SE area of the province – specifically the Medicine Hat Area concentrating on shallow gas zones. Tourmaline would like to see the regulator discuss the inclusion of the Development Entity Orders 2006-1 &amp; 2006-2 regions for routine commingled abandonment in the Cretaceous sands.</p> <p>Tourmaline Oil Corp would like to receive an indication as to when (timing) the AER might expand the Routine Commingled Abandonment Regions to include the Development Entity Orders 2006-1 &amp; 2006-2 regions? Tourmaline has taken part in a test pilot with the AER for commingled abandonment within the DE2 and would like to see this initiative moved forward and expanded to move forward effective abandonment of the Cretaceous sands in the DE2.</p>	<p>Tourmaline Oil Corp.</p>	<p>We have commenced a second scientific investigation to review additional geological strata and hydrocarbon pools for routine commingled abandonment. This evaluation commenced in July 2020, and includes a component to review and potentially expand geological strata in specific regions that cover already-approved wells during the commingled abandonment pilot. This review includes wells within Development Entity Orders 1/1A and 2/2A, but must consider the full extent of hydrocarbon pools and associated wells in order to satisfy long-term environmental outcomes and preservation of resources for future development. We will continue to notify and engage with industry by offering updates on progress, results, and anticipated timeframes related to future regions that are eligible or ineligible for commingled abandonment.</p>