

**BEFORE THE ENVIRONMENT COURT  
I MUA I TE KOOTI TAIAO O AOTEAROA**

**Decision No [2020] NZEnvC 103**

IN THE MATTER

of the Resource Management Act 1991

AND

of an appeal under clause 14 of the First  
Schedule of the Act

BETWEEN

TARANAKI ENERGY WATCH  
INCORPORATED

(ENV-2016-WLG-80)

Appellant

AND

SOUTH TARANAKI DISTRICT COUNCIL

Respondent

Court: Environment Judge J E Borthwick  
Environment Commissioner J A Hodges  
Environment Commissioner J T Baines

Hearing: In Chambers at Christchurch

Date of Decision: 14 July 2020

Date of Issue: 14 July 2020

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**FOURTH INTERIM DECISION OF THE ENVIRONMENT COURT**

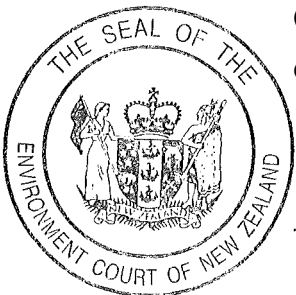
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**REASONS**

**Introduction**

[1] This decision determines all but one outstanding matter arising in relation to the appeal filed by Taranaki Energy Watch Incorporated on the South Taranaki proposed District Plan.

[2] The matter that is not decided is the inclusion of agreed Petroleum Activity Risk Contours on the planning maps. The court anticipates this matter may yet be able to be dealt with by consent orders.



### Structure of the decision

[3] The court has released three Interim Decisions, a preliminary Procedural Decision and orders by consent as it has progressively worked its way through the substantive issues for determination.<sup>1</sup>

[4] There remain four discrete issues for determination before the court can give its overall findings on the appeal. The issues concern:

- (a) the inclusion of a land use rule controlling the location of sensitive activities within a specified distance of a flare;
- (b) whether the court can direct the District Council to include a notation on the Land Information Memorandum alerting the public to the risk to human health associated with petroleum exploration and petroleum production activities;
- (c) the narration for two Alert Layers on the proposed District Plan; and
- (d) the treatment of existing sensitive activities presently exposed to unacceptable levels of risk.

### Interim Decisions

[5] In the first three Interim Decisions the court was largely engaged with a fact-finding exercise. Expert conferencing was reconvened following the release of the court's decisions and planning witnesses, together with other experts (as required), worked together to resolve the disputed plan provisions in light of the court's findings.<sup>2</sup>

[6] The court, as necessary, has commented and given direction on the wording of new provisions to be included in the proposed plan. Principally, this has been with the purpose of ensuring that the drafting of the plan's provisions is clear. Secondly, to ensure

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<sup>1</sup> *Taranaki Energy Watch Inc v South Taranaki District Council* Consent Order dated 28 March 2018; *Taranaki Energy Watch Inc v South Taranaki District Council* [2018] NZEnvC 227 (first Interim Decision); *Taranaki Energy Watch Inc v South Taranaki District Council* [2020] NZEnvC 18 (second Interim Decision); *Taranaki Energy Watch Inc v South Taranaki District Council* [2020] NZEnvC 32 (third Interim Decision); *Taranaki Energy Watch Inc v South Taranaki District Council* [2020] NZEnvC 35 (Corrigendum); *Taranaki Energy Watch Inc v South Taranaki District Council* Consent Order dated 11 June 2020; *Taranaki Energy Watch Inc v South Taranaki District Council* [2020] NZEnvC 96 (Procedural Decision).

<sup>2</sup> Three further joint witness statements from the planning witnesses have been filed, dated 15 April 2020; 7 May 2020 and 22 June 2020. In counsels' memoranda dated 5 June 2020 and 8 June 2020, all parties accepted further minor amendments suggested by the court.



that there is evidential support for the proposed new provisions when, on occasion, provisions have been recommended that appeared to be against the tenor of expert evidence. Finally, and in response to issues raised by Federated Farmers and TEW,<sup>3</sup> to have the witnesses keep front of mind the internalisation of risk of harm from an event occurring at a petroleum facility.

[7] We address next the first three issues noted above as they each arise in the context of air quality and concern the question of whether sensitive activities and petroleum activities should be permitted to collocate within an area where air-borne contaminants may or will have an adverse effect on human health.<sup>4</sup>

### **Outstanding air quality issues**

[8] In this proceeding benzene is the indicator contaminant for other contaminants that are discharged by petroleum activities. Benzene may have an adverse effect on human health if its concentration exceeds guideline values for acute or chronic health effects. In the third Interim Decision we recorded the advice of the court's Special Advisor, Professor I Shaw, that of the two, the chronic exposure level is more important because the potential health outcome of exposure is cancer. The acute exposure level is:<sup>5</sup>

far less relevant to human health risk than the chronic exposure level because ... acute exposure levels are unlikely to be high enough to exceed the acute safe exposure level.

[9] We found the risk of chronic health effects from the discharge of benzene to be highly unlikely and that the risk is acceptable in the circumstances. Indeed, we were satisfied that the probability of a chronic health effect occurring to be so low as to not support the inclusion of a land use rule in the proposed District Plan.<sup>6</sup>

[10] The greatest risk of an acute health effect is from an inefficiently operating flare; with ground pits (flares) having the lowest destruction efficiency when compared with other flares.<sup>7</sup> Overall, we found there is a low probability of an acute health effect

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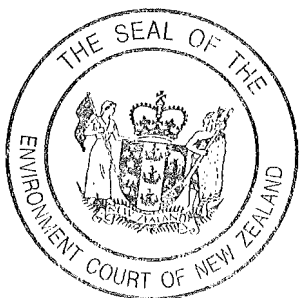
<sup>3</sup> TEW opening submissions dated 19 March 2018; Federated Farmers opening submissions dated 20 March 2018.

<sup>4</sup> Third Interim Decision above n 1 at [78].

<sup>5</sup> Third Interim Decision above n 1 at [20].

<sup>6</sup> Third Interim Decision above n 1 at [85]-[86].

<sup>7</sup> Third Interim Decision above n 1 at [88].



occurring for persons living or working within the impact zone of emissions from an inefficient flare stack.<sup>8</sup> For well-sites we accepted Mr Cudmore's evidence that "the probability of off-site dwellings being directly impacted ... is extremely low".<sup>9</sup>

[11] The key findings of the court are set out in detail in the following paragraph:<sup>10</sup>

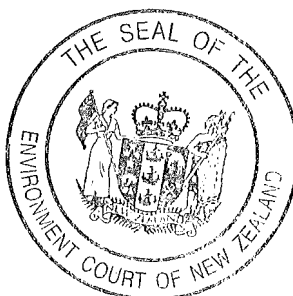
That said, we are satisfied on the balance of probabilities that the impact zone of a plume of emissions from a well-site or production station flare stack is some 70 m and 300 m distance from the stack (respectively). During normal operations the concentration of benzene within the impact zone will not usually exceed the guideline values for human health. However, there is a low probability of an acute health effect for persons living or working in the impact zone where there is variation in the composition of gas flared or the flare's destruction efficiency is lowered. During this time there is potential for increased acute exposure due to incomplete combustion of contaminants. The actual occurrence of an adverse health effect depends on a person being present and being exposed to contaminant, exposure may be moderated through meteorological conditions and terrain.

[12] With the probability of an acute health effect occurring being low, the question for the court is whether (and how) the proposed District Plan should respond to the risk.<sup>11</sup> This is a difficult question to resolve because, in addition to distance from the source of the emission, the actual occurrence of an adverse health effect depends on a person being present and exposed to contaminant. Distance aside, other factors moderating exposure are meteorological conditions and terrain.

### **Land use rule controlling the location of sensitive activities**

[13] In the third Interim Decision, we reached the preliminary view that the risk to human health from abnormal flare emissions (or, for that matter, any other emission source) does not support the inclusion of a land use rule in the proposed District Plan.<sup>12</sup>

[14] TEW responded to the court's findings confirming that it wished to pursue relief in the form of a land use rule controlling the location of sensitive activities relative to an emitter of contaminants.



<sup>8</sup> Third Interim Decision above n 1 at [90].

<sup>9</sup> Third Interim Decision above n 1 at [88].

<sup>10</sup> Third Interim Decision above n 1 at [87] (footnotes omitted).

<sup>11</sup> Third Interim Decision above n 1 at [94].

<sup>12</sup> Third Interim Decision above n 1 at [104] and [107].

**TEW submission**

[15] TEW is of the view that a new restricted discretionary activity (RDA) rule should be included in the plan responding to risk. Leaving it for the planning witnesses to propose wording, we are told the rule would apply to sensitive activities wishing to locate within 70 m / 300 m separation distance from the flaring emission. Assessment criteria could include acute human health effects and on-site features which may mitigate or avoid risk.

[16] This rule would be in addition to an alert layer in the plan or notation on the Land Information Memorandum (LIM) which we discuss next. TEW supports the inclusion of a rule as a prospective sensitive activity either may not see or disregard the alert layer or LIM notation. In saying that, TEW acknowledges the rule does not mean that sensitive activities are not exposed to risk, rather that risk is minimised.

[17] While the air quality scientists were not agreed on the setback distance, PEPANZ's witness, Mr Cudmore, recommended the 70 m / 300 m setbacks. Beyond these distances he was confident there would be no exceedance of the guideline values for acute health effects from flare emissions.<sup>13</sup> The 70 m / 300 m setbacks would apply to flares located at well-sites and production stations respectively.

[18] TEW points out to the court its finding that emissions beyond the boundary of the petroleum facility may exceed the guideline values for human health effects. They say, while the probability of a health effect occurring is low, the impact of that effect is high. TEW submits "[e]xposure to emissions above the guideline values [is] unacceptable in terms of risk".<sup>14</sup> Further, having found that there is a risk of exposure to emissions exceeding guideline values for acute health effects, the court should not embark on any "qualitative judgment", we presume, as to whether that risk is acceptable.<sup>15</sup>

**Submissions of the other parties**

[19] The District Council, together with Federated Farmers and PEPANZ, do not support the inclusion of the land use rule.<sup>16</sup>

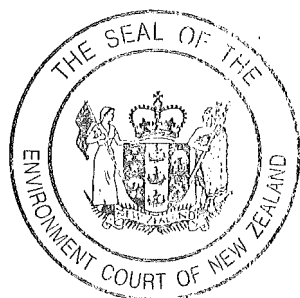
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<sup>13</sup> Third Interim Decision above n 1 at [84].

<sup>14</sup> TEW memorandum dated 13 May 2020 at [12] (footnotes omitted).

<sup>15</sup> TEW memorandum dated 13 May 2020 at [12].

<sup>16</sup> STDC, PEPANZ and Federated Farmers memoranda, each dated 22 May 2020.



[20] The District Council is critical of TEW for seeking setbacks without regard to probability (likelihood) of persons associated with the sensitive activity being exposed to levels of benzene exceeding the guideline values.<sup>17</sup> Further, the District Council says there is no evidence to support TEW's contention that an exceedance of guideline values for acute health effects will be of a high potential impact.<sup>18</sup>

### Discussion

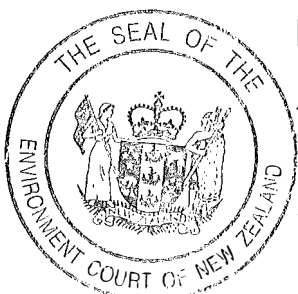
[21] We accept the position of the local authority that, when considering risk, it – and, it follows, this court on appeal – may consider the acceptability of that risk. Given that the decision on the acceptability of risk from fire and explosion proceeds on this basis, TEW's blunt submission to the contrary was surprising.

[22] The court laid out its approach when assessing the evidence of air quality scientists in the third Interim Decision, which has not been challenged by TEW. We said:<sup>19</sup>

As the parties are aware, different guidelines apply when considering acute and chronic health effects. The air quality scientists use guideline values as a method to screen air quality monitoring data. Approached this way, they do not speak about compliance with the guideline values, as if the guideline value was regarded like a rule in the plan or a condition on a resource consent. Rather they interpret the result of the available monitoring as being indicative only of the likely ambient benzene concentrations. Ultimately, the guidelines support the level of confidence the scientists have in their predictions about actual or potential effects from an emitter.

Their approach is valid when assessing the effects of an existing emitter but not determinative of contested policies addressing risk. Rather, we have approached the data and the modelled predictions, to make a judgment about the probability of a future event – here exposure to benzene emissions exceeding guideline values for acute and chronic health effects. It is this judgement that informs the decision whether setbacks, or some other method, is required in the District Plan. With that being said, the guideline values are important in this case as they are based on an assessment of risk to human health.

[23] TEW omits from its submission Mr Cudmore's observation that his recommended



<sup>17</sup> STDC memorandum dated 22 May 2020 at [6].

<sup>18</sup> STDC memorandum dated 22 May 2020 at [12].

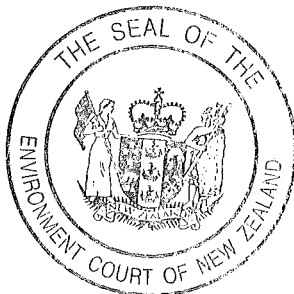
<sup>19</sup> Third Interim Decision above n 1 at [9]-[10] (footnotes omitted).

70 m setback from well-sites is not effects based.<sup>20</sup> The District Council, referring to the Transcript, records the same witness as saying that in relation to setbacks from production stations, the rule would impose costs on applicants for resource consent without any real societal benefit.<sup>21</sup>

[24] In recommending a setback with no societal benefit, it appeared to us that Mr Cudmore's evidence on the subject-matter was more relevant as to how he undertakes an assessment of emissions than the merits of a proposed rule in the District Plan. His recommendations on setbacks is an example of where the court has received evidence but was not well assisted by counsel to understand how this, together with the various strands of technical evidence, informed the issues at hand.

[25] TEW in its submission omits to refer to relevant findings in the third Interim Decision. Here we refer to dispersal modelling undertaken by Mr Cudmore upon whose evidence TEW now relies. The purpose of the modelling was to establish – amongst other matters – a reasonable basis upon which to make predictions of emissions from short term process upsets. The same broad matters were modelled as identified by TEW in the RDA rule (distance, terrain and meteorological conditions). This evidence was material to the court finding that there was a low probability of an acute health effect for persons living or working within the impact zone of emissions from an inefficient flare stack.

[26] TEW acknowledges in its submission that its proposed rule does not mean that sensitive activities are not exposed to risk. Rather, risk is minimised, presumably through informing the selection of a building platform. However, TEW does not address, as directed, the efficacy of any RDA rule. This was important to persuade the court that TEW demonstrate, pursuant to s 32(1) and (2) of the Act, a new RDA rule is the most appropriate measure. While the new rule would presumably be to implement Objective 2.8.11b and Policy 2.8.11(i), seeking a RDA status for sensitive activities proposing to locate within 650 m of existing petroleum activities and potentially within the individual fatality risk contour (where known), it is highly problematic as it could send conflicting signals to the public as to the compatibility of these activities in circumstances where the risk of fatality from fire or explosion is to be managed conservatively under the other provisions of the plan.



<sup>20</sup> Third Interim Decision above n 1 at [97].

<sup>21</sup> STDC memorandum dated 22 May 2020 at [21], citing Transcript (Cudmore) at 305-306.

[27] Having regard to all the available evidence, we confirm the probability of short-term emissions giving rise to an acute health impact is low, and – importantly – exposure levels are unlikely to exceed the acute safe exposure level.<sup>22</sup> The risk of not including a rule in the plan controlling sensitive activities within the setback is acceptable. TEW's submissions in support of a new rule have not persuaded us from our preliminary view that these findings do not support the inclusion of a land use rule.

### Land Information Memorandum

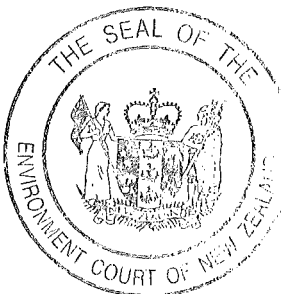
[28] The District Council has advised that it will include a notation on the LIM in the two circumstances where it has been confirmed that:<sup>23</sup>

- (a) an individual fatality risk contour extends over a sensitive activity; and
- (b) the Petroleum Flare Alert Area extends over a sensitive activity.

[29] The District Council submits any notation would not be for one of the mandatory purposes set out in s 44A(2) of the Local Government Official Information and Meetings Act 1987. As that appears to be the case, the inclusion of a notation is a discretionary matter for the District Council (as the local authority) to decide. That said, it would be surprising if the District Council did not include the notations, given the purpose of this provision in the Act.

[30] We acknowledge TEW's submissions as to the limitations of a notation on the LIM, in that a notation would not direct the location of a building platform.<sup>24</sup> Even so, TEW has not satisfied the court that a RDA rule is a more appropriate response.

[31] That being said, no further direction is required from the court.



<sup>22</sup> Third Interim Decision above n 1 at [99].

<sup>23</sup> STDC and PEPANZ memorandum dated 1 May 2020 at [8]-[9]; STDC memoranda dated 8 May 2020 at [20(a)] and 8 June 2020.

<sup>24</sup> TEW memorandum dated 13 May 2020 at [21].



## Alert layer

[32] STDC, PEPANZ and Federated Farmers propose a layer be included on the planning maps; namely a circle with a radius of 70 m from a well-site flare and 300 m from a production station flare. The contours will be included in a key to planning maps and labelled "Petroleum Flare Alert Area".

[33] The alert layer is a method in the plan for drawing attention to the emissions from petroleum activities. We will approve the draft wording proposed by the parties for inclusion in the plan, save that the reference to 'benzene' is replaced by 'contaminants' (benzene is an indicator contaminant for all other contaminants) and secondly, the reference to the Environment Court decision is deleted as it does not clarify or improve sense.

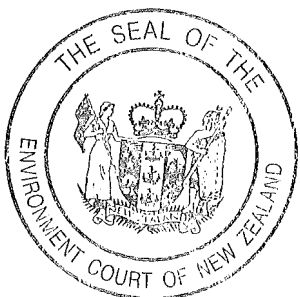
[34] We would approve the following wording:

### **New method of implementation to be added to Section 2.8 Hazardous Substances:**

Identify on the Planning Maps an alert layer that is subject to the potential presence of contaminants ~~benzene~~ from abnormal flare operation at a petroleum facility, which has the potential to cause acute health effects. As the probability of an acute health effect occurring is low, this alert layer (the Petroleum Flare Alert Area) is non-regulatory and no District Plan rules are triggered by it. This alert layer is measured 70 m from flares at well-sites and 300 m from flares at production stations. ~~For further information, please refer to Environment Court Decision [2020] NZEnvC 32 [*inset hyperlink*].~~

### **New text to be added to the explanatory text at the start of Section 12 Hazardous Substances Rules:**

The Planning Maps contain an alert layer that is subject to the potential presence of contaminants ~~benzene~~ from abnormal flare operation at a petroleum facility, which has the potential to cause acute health effects. As the probability of an acute health effect occurring is low, this alert layer (the Petroleum Flare Alert Area) in non-regulatory and no District Plan rules are triggered by it. This alert layer is measured 70 m from flares at well-sites and 300 m from flares at



production stations. For further information, please refer to Environment Court Decision [2020] NZEnvC 32 [*insert hyperlink*]. For information about the discharge to air from a flare, please contact the Taranaki Regional Council.

### **Section 32AA Analysis – outstanding air quality provisions**

[35] Pursuant to s 32AA of the RMA, the court has undertaken its evaluation of the proposed changes at a level that corresponds to the scale and significance of the changes proposed. We find a RDA rule as proposed by TEW would not be the most appropriate way for achieving the objective and relevant policy and find the Alert Layer is sufficient by itself, but that it is desirable that the Alert Layer is coupled with a notation on the LIM.

### **Issue: The treatment of existing sensitive activities presently exposed to unacceptable levels of risk**

[36] As recorded in the Procedural Decision,<sup>25</sup> TEW's notice of appeal seeks rules (methods) to ensure existing petroleum activities bring themselves into compliance with the provisions of the proposed plan.<sup>26</sup> This was the immediate context for relief, supported by all parties, to include policies and a new rule pertaining to additions and alterations to existing petroleum activities (Policies 2.8.11(g), 2.8.11(h) and 2.8.11(XXX) and Rule 12.1.3(bb)). Having noted problems with the drafting of the policies that the Rule 12.1.3(bb) would implement, we said:<sup>27</sup>

...the court does not favour the proposed restricted discretionary activity status (Rule 12.1.3(bb)) for alterations or additions to existing petroleum activities where there are one or more sensitive activities within the existing fatality risk contour. It appears to us that the adoption of an RDA status assumes that the risk to human health is the same for all RDA activities. However, this assumption is unsupported by expert evidence. Moreover, the matters of discretion are insensitive to the fact that petroleum activities cannot design their way out of an Unacceptable Risk. We will seek submissions from counsel on the appropriate status of activities described by proposed Rule 12.1.3(bb).

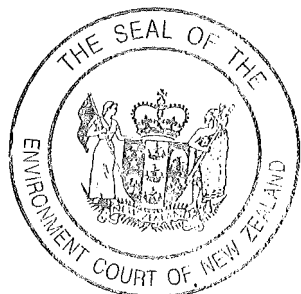
[37] Before hearing from counsel, the planners responded to specific issues raised

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<sup>25</sup> Procedural Decision above n 1.

<sup>26</sup> Notice of appeal, Section 2.9 Energy, cl 13.2.3 at 15.

<sup>27</sup> Minute dated 29 April 2020 at [11].



around the drafting of the above provisions.<sup>28</sup> However, the court remained concerned that the rule would not implement the relevant policies and this time, we sought submissions on the relevant provisions asking parties to confirm where each of them stood in relation to the on-going exposure of sensitive activities to Unacceptable Risk.<sup>29</sup> When counsel replied it became apparent that they did not share a common view as to the management of existing petroleum activities, with PEPANZ seeking now to permit alterations and additions to these activities.<sup>30</sup>

### **PEPANZ submissions**

[38] When responding, PEPANZ proposed a new permitted activity rule that would apply to alterations and additions to existing petroleum activities that did not increase risk. We were told PEPANZ had been informed by its members that if risk was increased, this would also extend the individual fatality risk contour.<sup>31</sup> However, PEPANZ has since acknowledged this advice was incorrect and that risk to sensitive activities may increase without there being a corresponding change to the individual fatality risk contour.<sup>32</sup> Consequently, PEPANZ has needed to rethink the rule regime it was pursuing.

[39] At that time PEPANZ had also argued that a new permitted activity rule would reflect the purpose of the Rural Industrial Zone, which is to permit the ongoing efficient and effective functioning of regionally and nationally important activities. Citing in support the New South Wales Government Hazardous Industry Planning Advisory Paper No 4<sup>33</sup> (HIPAP4), PEPANZ submitted HIPAP4, from which the 'Unacceptable Risk'  $1 \times 10^{-6}$  contour is derived, does not contemplate regulating or managing historical and pre-existing risk situations.<sup>34</sup> PEPANZ subsequently corrected this submission, noting HIPAP4 does apply to modifications and additions to existing petroleum activities.<sup>35</sup>

[40] Notwithstanding the above, PEPANZ maintains alterations and additions that do not increase risk to sensitive activities within the Petroleum Activity Risk Contour should

<sup>28</sup> Planning, JWS dated 7 May 2020.

<sup>29</sup> Minute dated 28 May 2020 at [11].

<sup>30</sup> PEPANZ memorandum dated 12 June 2020 at [7].

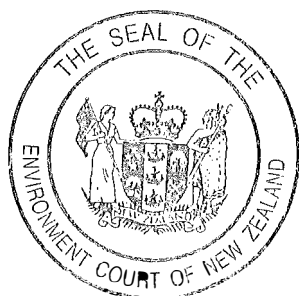
<sup>31</sup> PEPANZ memorandum dated 12 June 2020 at [6].

<sup>32</sup> Federated Farmers, PEPANZ, TEW and STDC memorandum dated 29 June 2020 at [9].

<sup>33</sup> NSW Government *Risk Criteria for Land Use Safety Planning* (Hazardous Industry Planning Advisory Paper No 4, January 2011).

<sup>34</sup> PEPANZ memorandum dated 12 June 2020 at [6].

<sup>35</sup> Federated Farmers, PEPANZ, TEW and STDC memorandum dated 29 June 2020 at [11].



be permitted and proposes a suite of objectives, policies and rules in support. Coming as it does in the eleventh hour, PEPANZ does not call evidence in support of these provisions and, indeed, its own planning witness, Mr M St Clair, does not support the amendments.<sup>36</sup>

[41] Even so, PEPANZ submits the imposition of a consenting requirement on activities that may actually reduce risk, is counter-intuitive to the attainment of good resource management outcomes.<sup>37</sup> The framework of provisions needs to be pragmatic and recognise the significant difficulties and costs to the industry in avoiding exposing sensitive activities to Unacceptable Risk. Moreover, the risks and the exposure of sensitive activities to the risk have been occurring for decades.<sup>38</sup> Ultimately, the permitted activity rule enables petroleum activities to continue to operate efficiently and to deliver local, regional and national benefits.<sup>39</sup> In saying that, PEPANZ offers up that any additions or alterations that do increase risk to sensitive activities, should require resource consent and be assessed as a RDA.<sup>40</sup>

### ***Submissions of the other parties***

[42] No party requests the hearing resume on these contested provisions and instead they invite the court to decide the matter on the papers filed.

[43] The other parties – TEW, STDC and Federated Farmers – do not support the position taken by PEPANZ preferring instead to address the evident lacuna in the policies and/or rules signaled in the court's Minutes.

### ***Discussion***

[44] From the outset of these proceedings, the court flagged as a significant resource management issue the incompatibility of certain land uses. We found that, where there is an unacceptable risk of individual fatality arising from fire or explosion at a petroleum exploration and production facility, it was appropriate the risk be avoided.<sup>41</sup> Responding

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<sup>36</sup> Planning, JWS dated 22 June 2020.

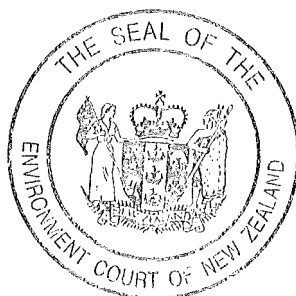
<sup>37</sup> Federated Farmers, PEPANZ, TEW and STDC memorandum dated 29 June 2020 at [21].

<sup>38</sup> PEPANZ memorandum dated 12 June 2020 at [8]-[9]; Federated Farmers, PEPANZ, TEW and STDC memorandum dated 29 June 2020 at [23].

<sup>39</sup> PEPANZ memorandum dated 12 June 2020 at [8(f)].

<sup>40</sup> Federated Farmers, PEPANZ, TEW and STDC memorandum dated 29 June 2020 at [15].

<sup>41</sup> First Interim Decision above n 1 at [5].



to the concerns raised by TEW and Federated Farmers, we said consideration needed to be given as to whether, and to what extent, the objectives and policies drive the internalisation of risk as the primary outcome of the proposed plan and secondly, whether activity status and other methods could incentivise the internalisation of risk.<sup>42</sup>

[45] In the second Interim Decision, the court was not satisfied that the rule regime proposed by the planning witnesses would incentivise risk internalisation. As it is relevant to the new rule proposed by PEPANZ, we quote from the second Interim Decision where we said:<sup>43</sup>

[49] We are not yet satisfied Rule 12.1.1(b) adequately incentivises the internalisation of risk. Rather, it promotes no change to the risk profile for existing petroleum production activities. In other words, petroleum activities are permitted in circumstances where the fatality risk contour shown on a planning map is not extended. As recorded, it is likely the fatality risk contour for existing petroleum production activities already extends beyond the Rural Industrial Zone and into neighbouring land and, we assume, therefore, beyond the subject "site", if not the zone. We were told that for one Production Station, residential dwellings may be located within this contour while residential dwellings are also likely located near the fatality risk contours for other production stations.

[50] We are uncertain as to the parties' intention where there are existing sensitive activities located within a fatality risk contour. Specifically, there does not appear to be any policy that addresses the location of existing sensitive activities within a PARC. If there is no PARC shown on a planning map, any alterations and additions would be classified as non-complying activities under Rule 12.1.5(d) if sensitive activities are present. If correct, the operator of the petroleum facility may be perversely incentivised to include a PARC in the plan as any alterations and additions to the existing petroleum production activity would be permitted provided the fatality risk contour does not extend beyond the PARC as a result of that work (12.1.1(b)).

NB: 'PARC' means "**Petroleum Activity Risk Contour**" and for petroleum exploration and petroleum production provisions, this is the  $1 \times 10^{-6}$  individual fatality risk contour shown on a Planning Map.

[46] Since that decision was released, we now know that there are likely to be sensitive activities (dwellings) within the individual fatality risk contours associated with three Production Stations.<sup>44</sup> That said, for the majority of petroleum facilities, the location of



<sup>42</sup> First Interim Decision above n 1 at [62(b)]. See also, second Interim Decision above n 1 at [27].

<sup>43</sup> Second Interim Decision above n 1 at [49]-[50] (footnotes omitted).

<sup>44</sup> Joint submission of STDC and TEW dated 12 June 2020 at [5].

the contour has not been established and the rule would not apply.

[47] At paragraph [51] of the second Interim Decision, we said that if our view of Rule 12.1.1(b) was correct, the rule would not be an appropriate method to implement the relevant policies and objectives and that we would not approve of the same. At that time, the proposed new rule was to permit alterations or additions to existing petroleum production activities in the Rural Industrial Zone provided that the new individual fatality risk contour did not extend beyond any Petroleum Activity Risk Contour (PARC) shown on a planning map. PEPANZ is effectively seeking a return to Rule 12.1.1(b) that was proposed in May 2020, modified to the extent that if there is an increase in risk – even if the PARC did not change – the activity will require resource consent.

[48] Risk reduction is a good resource management outcome. However, for the reasons we gave in the second Interim Decision we do not accept that, without more, a permitted activity rule will incentivise risk reduction and nor do we necessarily accept this outcome is PEPANZ's primary goal in supporting a new rule. Furthermore, we find PEPANZ's rule, if approved, would likely render nugatory Rule 12.1.1(bb), which permits alterations or additions to existing petroleum production activities in the Rural Industrial Zone provided that the new  $1 \times 10^{-6}$  individual fatality risk contour does not extend outside of the Petroleum Activity Risk Area.<sup>45</sup> The rule would likely be nugatory because there is no incentive for petroleum operators to incur the cost of establishing Petroleum Activity Risk Area, where they are not proposing to increase risk.

[49] Turning to the evidence, the planners say PEPANZ's proposed amendment to Objective 2.8.3a is inconsistent with the court's findings that residential activities (at least) should not be allowed within the risk fatality contour.<sup>46</sup> We agree. The proposed amendment has the potential to confound the proposed plan's clear message that unacceptable risk to the environment and to human health are to be avoided. Rather than change the objective, the planners would include a new policy (Policy 2.8.11(YYY)) requiring Unacceptable Risk to existing sensitive activities be avoided or, where Unacceptable Risk

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<sup>45</sup> The "Petroleum Activity Risk Area" (for petroleum exploration and petroleum production provisions) means:

- the area defined as the  $1 \times 10^{-6}$  individual fatality risk contour contained in one or more allotments, sections or parcels in relation to which the operator of a petroleum exploration and petroleum production activity (currently established or proposed to be established) either owns or has an enforceable interest in (including lease, covenant, and legal contract); and
- precludes the establishment or operation of sensitive activities for the duration of the operation of the petroleum exploration and petroleum production activity within this area.

<sup>46</sup> Planners JWS dated 22 June 2020.



cannot be avoided, then risk is not increased and secondly, risk is reduced as low as reasonably practicable.

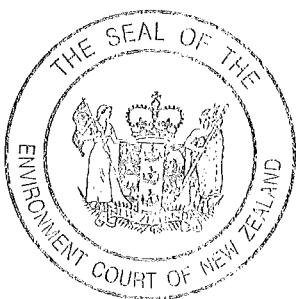
[50] The new policy could resolve the court's concerns with the proposed RDA rule, if the associated rule were amended to include, as a matter of discretion, the application of risk management (ALARP) to Unacceptable Risk that cannot be avoided (Rule 12.1.3(bb) sub-clause (d)). That way there would be specific consideration given to the avoidance of the risk. If the rule is not amended, for the reasons we set out in the Minute dated 29 April 2020 at [11], we do not yet understand how the matters of discretion listed are relevant to avoidance of Unacceptable Risk.<sup>47</sup>

[51] The RDA status of Rule 12.1.3(bb) would impose costs on the three production stations<sup>48</sup> which, going forward, will need to apply for consent to alter or amend their facilities. Nevertheless, it was the planners' view the rule was the most appropriate activity status to implement their proposed new policy and achieve Objective 2.8.3a as it will provide for a case-by-case assessment to determine whether the risks are as low as reasonably practicable and encourages the assessment of options to achieve this.<sup>49</sup> We also agree with their analysis.

***Section 32AA Analysis – the treatment of existing sensitive activities presently exposed to unacceptable levels of risk***

[52] Acknowledging the legal rights of existing petroleum activities to continue to operate, and the significant contribution of the three Production Stations affected to the economy, we find that it is not appropriate that the public continue to bear this level of risk to their health and safety in circumstances where risk can be avoided or, if not, then minimised to as low as reasonably practicable. While not raised by Federated Farmers, the finding also responds to their concern as to the impact on property values of surrounding land where risk has not been internalised.

[53] The parties have now confirmed that Policies 2.8.11(g) and 2.8.11(YYY) are to standardise the language used i.e. that risks are 'minimised' as low as reasonably



<sup>47</sup> See Minute dated 29 April 2020 at [11].

<sup>48</sup> The rule will only apply where there is a Petroleum Activity Risk Contour shown on a planning map. To that end, the court anticipates the three Production Stations will apply for consent orders.

<sup>49</sup> Planners JWS dated 22 June 2020 at [1.9].

practicable.<sup>50</sup> We approve 'minimise' as this term also has synergies with section 30 of the Health and Safety at Work Act 2015 and have amended Policy 2.8.11(YYY) accordingly. With that done, and subject to what we said in relation to Rule 12.1.3(bb) sub-clause (d), we would be satisfied pursuant to s 32AA of the Act that the new policy proposed by STDC, TEW and Federated Farmers is the most appropriate way to give effect to Objective 2.8.3a.

### Other objectives, policies and rules (methods)

[54] The balance of objectives, policies and rules (methods) are agreed as between the parties. Developed in a careful iterative fashion, we are satisfied pursuant to s 32 AA that these provisions appropriately address the significant resource management issues raised by TEW's appeal and identified (now) in the proposed plan. Namely:

#### Issue 2.8.1 (DV)

The risks of adverse effects on the environment and human health associated with the use, disposal, storage and transportation of hazardous substances.

And

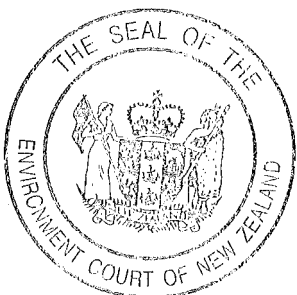
#### Issue 2.8.1a (new)

The risks to human health and property from incompatible land use when new sensitive activities locate in proximity to existing significant hazardous facilities.

### Outcome

[55] We direct:

- (a) by **Monday 20 July 2020** the parties having reviewed Annexure A to this decision, will confirm:
  - (i) that the court has captured correctly the wording of the proposed plan provisions, including that the editorial changes sought by parties on 5 June 2020 have been made; and
  - (ii) the court's proposed change to Rule 12.1.3(bb) sub-clause (d) or address the issue raised by the court in the Minute dated 29 April 2020



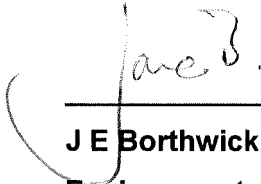
<sup>50</sup> Joint memorandum dated 10 July 2020.

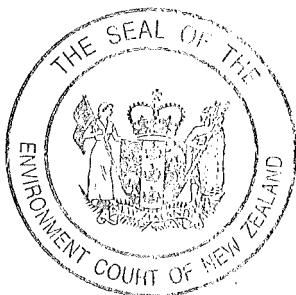


at [11]; and

- (b) if no further amendments are sought by the parties, the court will approve (without any further decision issuing) the provisions in Annexures A, B and C, attached to and forming part of this decision.

For the court

  
\_\_\_\_\_  
**J E Borthwick**  
**Environment Judge**



## Annexure A:

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### Section 1 Definitions

Add the following new definitions to Section 1.11:

**Petroleum Activity Risk Area** (for petroleum exploration and petroleum production provisions) means:

- the area defined as the  $1 \times 10^{-6}$  individual fatality risk contour contained in one or more allotments, sections or parcels in relation to which the operator of a petroleum exploration and petroleum production activity (currently established or proposed to be established) either owns or has an enforceable interest in (including lease, covenant, and legal contract); and
- precludes the establishment or operation of sensitive activities for the duration of the operation of the petroleum exploration and petroleum production activity within this area.

**Petroleum Activity Risk Contour** (for petroleum exploration and petroleum production provisions) means the  $1 \times 10^{-6}$  individual fatality risk contour shown on the Planning Maps.

**Unacceptable Risk** (for significant hazardous facilities provisions) means exposure of sensitive activities (including residential dwelling) to an individual fatality risk level exceeding  $1 \times 10^{-6}$  per year.

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### Section 2.8 Hazardous Substances and Contaminated Land

Add the following new Issue to Section 2.8:

Issue 2.8.1a The risks to human health and property from incompatible land use when new sensitive activities locate in proximity to existing significant hazardous facilities.

Add the following text after the first sentence in the 3<sup>rd</sup> paragraph to the Explanation in the Issues section in Section 2.8:

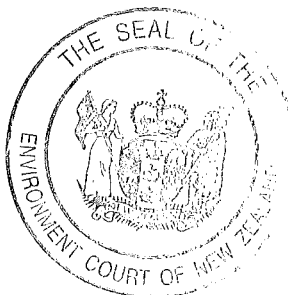
Significant hazardous facilities can pose a risk to surrounding land uses from emergency events, such as explosions or large fires. Such emergency events have a very low probability of occurring, though if they occur, they can pose high potential harm to nearby people and damage to property.

Add the following new Objective and heading to Section 2.8:

#### **Petroleum Exploration and Petroleum Production**

Objective 2.8.3a Recognise the important benefits associated with the use, storage, disposal and transportation of hazardous substances associated with petroleum exploration and petroleum production activities whilst also ensuring that risks to the environment and human health are:

- (a) Avoided where the risks are unacceptable; and
- (b) Minimised for lesser risks as low as reasonably practicable (ALARP).



Add the following new Objective to Section 2.8:

Objective 2.8.3b Sensitive activities are located where they:

- (a) Avoid areas exposed to an unacceptable level of risk from existing petroleum exploration and petroleum production activities; and
- (b) Do not compromise existing petroleum exploration and petroleum production activities due to reverse sensitivity effects and /or incompatibility.

Retain Policies 2.8.5 – 2.8.11 as below, except for the amendment to Policy 2.8.9 as previously agreed at expert conferencing and add a new sub-heading:

**Significant Hazardous Facilities**

Policy 2.8.5 Ensure significant hazardous facilities are located, designed, constructed and managed to minimise risk to the extent practicable and avoid Unacceptable Risk to the environment and human health.

Policy 2.8.6 Ensure appropriate facilities and systems are provided to avoid accidental or unintentional release, or loss of control (such as spills and gas escapes) of hazardous substances.

Policy 2.8.7 To avoid duplication of the regulation of activities controlled by the Hazardous Substances and New Organisms Act 1996 (HSNO) and other workplace safety law by:

- (a) Generally providing for activities that meet the relevant requirements of the HSNO Act and other workplace safety law as permitted activities; and
- (b) Only requiring resource consents for activities that may have actual and potential effects that are cumulative, or where there is significant potential risk of adverse effects on the environment or human health.

Policy 2.8.8 Manage the location of significant hazardous facilities by:

- (a) Locating significant hazardous facilities to avoid or adequately mitigate adverse effects, including risks, to people, property and the environment in the following situations:
  - (i) In close proximity to sensitive activities;
  - (ii) Within and adjacent to significant areas of indigenous vegetation and habitats of indigenous fauna;
  - (iii) Adjacent to significant waterbodies;
  - (iv) Within and adjacent to Sites of Significance to Tāngata Whenua or sites of historical or archaeological significance;
  - (v) Within the Coastal Protection Area and Flood Hazard Area, and areas at risk of ground rupture from known active faults.
- (b) Ensuring adequate separation distances or other measures between significant hazardous facilities and activities sensitive to significant hazardous facilities to avoid or adequately mitigate risk to people and property; and
- (c) Identifying, assessing and managing adverse effects (including cumulative) of significant hazardous facilities to mitigate risk to people, property and the environment.

Policy 2.8.9 Manage potential reverse sensitivity conflicts between existing lawfully established significant hazardous facilities and new sensitive activities through subdivision and land use activity controls and other appropriate measures.

Policy 2.8.10 Disposal of hazardous wastes is to be undertaken in an environmentally safe manner at authorised facilities to avoid risk of hazardous substances creating adverse effects on the environment and human health.



Policy 2.8.11 Transportation of hazardous substances, including wastes, as part of a land use activity should be undertaken in a safe manner, by modes and transport routes which prevent or minimise the risk of adverse effects on other land use activities, the environment, and other transport users.

Add the following new Policies and heading to Section 2.8:

**Petroleum Exploration and Petroleum Production**

Policy 2.8.11(a) Ensure petroleum exploration and petroleum production activities are located, designed, constructed and managed to avoid Unacceptable Risk and minimise lesser risks as low as reasonably practicable (ALARP) to the environment and human health.

Policy 2.8.11(b) Ensure new petroleum exploration and petroleum production activities are located where they do not expose existing sensitive activities to Unacceptable Risk.

Policy 2.8.11(c) Require new petroleum exploration and petroleum production activities to internalise the Unacceptable Risk within the site of the activity unless, where the Unacceptable Risk extends outside the site of the activity, a mechanism avoids the Unacceptable Risk to sensitive activities.

Policy 2.8.11(h) Ensure additions and alterations to existing petroleum exploration and petroleum production activities do not expose existing sensitive activities to Unacceptable Risk.

Policy 2.8.11 (XXX) Encourage additions and alterations to existing petroleum exploration and petroleum production activities to internalise the Unacceptable Risk within:

- (a) the site of the existing petroleum activity; or
- (b) land owned by the operator; or
- (c) land where the operator has an enforceable interest (including lease, covenant or legal contract).

Policy 2.8.11(g) Manage additions and alterations to existing petroleum exploration and petroleum production activities where:

- (a) the Unacceptable Risk extends outside the existing Petroleum Activity Risk Contour, or
- (b) there is no Petroleum Activity Risk Contour;

to avoid Unacceptable Risk to sensitive activities and minimise the lesser risks as low as reasonably practicable (ALARP).

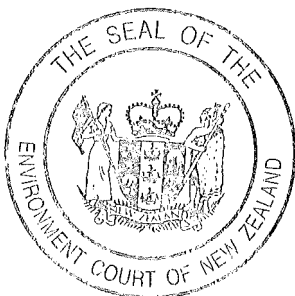
Policy 2.8.11 (YYY)

Manage additions and alterations to existing petroleum exploration and petroleum production activities where there are existing sensitive activities within the existing Petroleum Activity Risk Contour to ensure:

- (a) the Unacceptable Risk to the existing sensitive activity is avoided; or
- (b) where the Unacceptable Risk cannot be avoided, risk to the existing sensitive activity is not increased and is minimised to as low as reasonably practicable (ALARP).

Policy 2.8.11(d) Avoid the establishment of petroleum exploration and petroleum production activities which use, store or handle hazardous substances in the Residential Zone and Township Zone due to risk to the environment and human health.

Policy 2.8.11(e) Identify and keep up-to-date on the Planning Maps the Petroleum Activity Risk Contours related to existing petroleum exploration and petroleum production activities using a level of risk threshold of  $1 \times 10^{-6}$  (risk contour).



Policy 2.8.11(f) That Petroleum Activity Risk Contours will be uplifted from the Planning Maps in whole or in part and for separation distances to no longer apply where:

- (a) there are no risk generating activities being undertaken; or
- (b) the level of risk reduces significantly and extant consents or rules do not enable risk generating activities to establish or intensify in the future.

Policy 2.8.11(i) Avoid new sensitive activities locating in areas which are exposed to Unacceptable Risks from existing petroleum exploration and petroleum production activities.

Policy 2.8.11(j) Where there is no Petroleum Activity Risk Contour, manage the location of new sensitive activities near existing petroleum exploration and petroleum production activities by applying separation distances based on generic fatality consequence distances for petroleum exploration and petroleum production activities.

*Amend the Explanation of Policies to Section 2.8 as follows:*

These objectives and associated policies have been specifically drafted to avoid duplication between the District Plan and the HSNO Act and other regulations managing hazardous substances. The Council recognises that the HSNO Act is the primary legislation that controls the manufacture, import, transportation, storage, use and disposal of hazardous substances, and that it manages hazardous facilities. Under the HSNO Act, the Environmental Protection Authority is the regulatory agency who assess and decide on applications which seek to introduce hazardous substances or new organisms into New Zealand. Under the Health and Safety at Work (HSW) Act, WorkSafe New Zealand is responsible for the use of hazardous substances in workplaces, such as factories, farms and drilling sites.

Whilst compliance with the HSNO Act, HSW Act and other regulations will generally ensure that any adverse effects arising from the use, storage, disposal and transportation of hazardous substances are effectively managed, the District Plan applies additional controls on significant hazardous facilities and for sensitive environments. Significant hazardous facilities can adversely affect the environment and community if they are not appropriately sited and/or managed. Particular regard would be had to risks to neighbouring property (including dwellings) and the community from fire, explosion or natural hazard events affecting the significant hazardous facility. For these reasons, Rural Industrial zoned land has been identified as the most appropriate location for significant hazardous facilities to locate, acknowledging that the Rural Zone can also accommodate significant hazardous facilities if effects can be appropriately managed. However, in identifying this, it is recognised that these zones often contain sensitive natural environments or have unusual characteristics (i.e., waterbodies, natural hazards etc) that also need to be taken into account and carefully managed. The District Plan therefore applies controls where particular locations have been identified where the environment may be more sensitive to adverse effects from significant hazardous facilities. In addition, a risk assessment for each new significant hazardous facility would determine the appropriate distance for locating this facility in relation to existing sensitive activities.

The Plan manages the risks to human health and the environment from additions and alterations to existing petroleum exploration and petroleum production activities as well as risks from new sensitive activities locating close to existing petroleum exploration and petroleum production activities.

The risks from petroleum exploration and petroleum production activities cannot be fully eliminated, only reduced. There is a level of risk of human fatality that is considered unacceptable. The Plan defines this as the "Unacceptable Risk". Where risks are not unacceptable, the Plan adopts the principle of minimising risks to As Low As Reasonably Practicable (ALARP) which is the concept used in health and safety context.

Commented [B31]: Corrected for grammar.

In relation to new petroleum exploration and petroleum production activities, the Unacceptable Risk is to be internalised within the site of the activity unless, and where the Unacceptable Risk extends outside the site of the activity, an enforceable mechanism(s) is in place to avoid the Unacceptable Risk to sensitive activities. For example, such mechanisms may comprise covenants or legal agreement between the operators and neighbouring landowner.



In addition to the above, it is equally important that more sensitive activities such as residential subdivision and development are managed so that reverse sensitivity matters can be averted. The risk posed by significant hazardous facilities is often directly related to the nature and proximity (particularly in terms of population density) of the more sensitive receiving environment. The establishment of new sensitive activities close to an existing significant hazardous facility may result in unacceptable risks to the new activity and/or reverse sensitivity effects on the existing facility. Accordingly, site-specific (e.g.  $1 \times 10^{-6}$  individual fatality risk contour) and the zone-based (e.g. setbacks and list of activities) sections of the District Plan contain provisions to manage incompatible land uses and reverse sensitivity matters. Where petroleum exploration or petroleum production activities are decommissioned and/or wells capped, and the ability to establish or intensify in the future is not enabled by the rules or consents, there is no longer a risk to sensitive activities. In these circumstances, the provisions to manage incompatibility and reverse sensitivity for new sensitive activities no longer apply.

In terms of the potential risks to the environment and human health, the inappropriate disposal of hazardous waste can result in contamination of soil, air, groundwater or surface water, both at the source and at locations remote from the source through migration. The improper release of hazardous substances into the environment presents a major threat to the life supporting capacity of the environment and community health. Hazardous waste must be disposed of at a licensed hazardous waste facility that can accept such waste, or alternatively be treated to reduce the level or mobility of the contaminants to acceptable levels.

The transport of hazardous substances on land (including State Highways and local roads) is controlled by the Land Transport Rule: Dangerous Goods 2005 (created under the Land Transport Act 1998), and New Zealand Standard 5433:2007 which is a means of compliance. Accordingly it is not considered necessary for the transport of hazardous substances in the District to be the subject of resource consent.

*Amend the following Method in Section 2.8 under the sub-heading 'District Plan':*

- Assessment of environmental effects through the resource consent process for significant hazardous facilities, including where they do not meet performance standards. If written approval (or agreement by any other instrument) is provided with a resource consent application, this approval does not prevent consideration of the effects on the environment (including Part 2 matters of health and safety), including on persons who may visit the vicinity or on persons residing at the property and whose written approval has not been obtained.

*Add the following new Method to Section 2.8 under the sub-heading 'Collection and Provision of Information':*

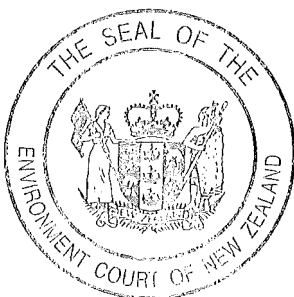
- Collect and maintain publicly available information about the level of risk from petroleum exploration and petroleum production activities. This information would, be supplied by operators of petroleum exploration and petroleum production activities via resource consent applications or in meeting their obligations under other legislation or regulations.
- Regularly share changes to risk assessment information and risk contours between operators and the Council, and undertake plan changes to keep the Petroleum Activity Risk Contour shown on the Planning Maps up to date.

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## **Section 12: Hazardous Substances Rules**

*Add the following new Permitted Activity Rule to Section 12.1.1:*

- Rule 12.1.1 (b) In the Rural Industrial Zone for sites with a Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities provided:



- (i) the new  $1 \times 10^{-6}$  individual fatality risk contour does not extend beyond the Petroleum Production Activity Risk Contour shown on the Planning Maps for the subject site; and
- (ii) there are no existing sensitive activities within the new  $1 \times 10^{-6}$  individual fatality risk contour.

Rule 12.1.1 (bb) In the Rural Industrial Zone for sites with a Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities provided the new  $1 \times 10^{-6}$  individual fatality risk contour does not extend outside of the Petroleum Activity Risk Area.

Rule 12.1.1 (c) In the Rural Industrial Zone for sites with no Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour does not extend beyond the Rural Industrial Zone.

*Add the following new Restricted Discretionary Activity Rule to Section 12.1.3:*

Rule 12.1.3 (b) In the Rural Industrial Zone for sites with a Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour extends outside the Petroleum Production Activity Risk Contour shown on the Planning Maps for the subject site and does not contain any existing sensitive activities.

Matters of discretion:

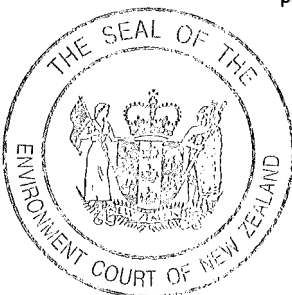
- (a) Changes to operations and site layout arising from the proposed alterations or additions to the facility, including the location of hazardous substances on-site.
- (b) Separation distances from sensitive activities and sensitive environments, including the number of people potentially at risk from the proposed alterations or additions to the facility.
- (c) Any new or increase in potential health or environmental hazards and exposure pathways arising from the proposed alterations or additions to the facility and any on site containment measures proposed.
- (d) Application of risk management (ALARP) to lesser risks.
- (e) Proposed emergency management planning (spills, fills and other relevant hazards).
- (f) Proposed monitoring and maintenance schedules.
- (g) Compliance with relevant Codes of Practice and standards and relevant regional plan permitted activity performance standards/resource consents.
- (h) Controls proposed to avoid the establishment of new sensitive activities within the area of Unacceptable Risk.

Rule 12.1.3 (bb) In the Rural Industrial Zone for sites with a Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities where:

- (i) the new  $1 \times 10^{-6}$  individual fatality risk contour does not extend outside the Petroleum Production Activity Risk Contour shown on the Planning Maps for the subject site; and
- (ii) there are one or more existing sensitive activities within the new  $1 \times 10^{-6}$  individual fatality risk contour.

Matters of discretion:

- (a) Changes to operations and site layout arising from the proposed alterations or additions to the facility, including the location of hazardous substances on-site.
- (b) Separation distances from sensitive activities and sensitive environments, including the number of people potentially at risk from the proposed alterations or additions to the facility.



- (c) Any new or increase in potential health or environmental hazards and exposure pathways arising from the proposed alterations or additions to the facility and any on site containment measures proposed.
- (d) Application of risk management (ALARP) to Unacceptable Risk that cannot be avoided and to lesser risks.
- (e) Proposed emergency management planning (spills, fills and other relevant hazards).
- (f) Proposed monitoring and maintenance schedules.
- (g) Compliance with relevant Codes of Practice and standards and relevant regional plan permitted activity performance standards/resource consents.
- (h) Controls proposed to avoid the establishment of new sensitive activities within the area of Unacceptable Risk.

Rule 12.1.3 (c) In the Rural Industrial Zone for sites with no Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour does not contain any existing sensitive activities.

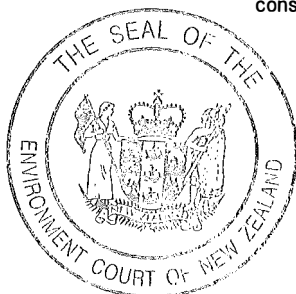
Matters of discretion:

- (a) Changes to operations and site layout arising from the proposed alterations or additions to the facility, including the location of hazardous substances on-site.
- (b) Separation distances from sensitive activities and sensitive environments, including the number of people potentially at risk from the proposed alterations or additions to the facility.
- (c) Any new or increase in potential health or environmental hazards and exposure pathways arising from the proposed alterations or additions to the facility and any on site containment measures proposed.
- (d) Application of risk management (ALARP) to lesser risks.
- (e) Proposed emergency management planning (spills, fills and other relevant hazards).
- (f) Proposed monitoring and maintenance schedules.
- (g) Compliance with relevant Codes of Practice and standards and relevant regional plan permitted activity performance standards/resource consents.
- (h) Controls proposed to avoid the establishment of new sensitive activities within the area of Unacceptable Risk.

Rule 12.1.3 (d) In the Rural Zone, alterations or additions to existing petroleum exploration and petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour is contained within the Petroleum Activity Risk Area for the subject site.

Matters of discretion:

- (a) Changes to operations and site layout arising from the proposed alterations or additions to the facility, including the location of hazardous substances on-site.
- (b) Separation distances from sensitive activities and sensitive environments, including the number of people potentially at risk from the proposed alterations or additions to the facility.
- (c) Any new or increase in potential health or environmental hazards and exposure pathways arising from the proposed alterations or additions to the facility and any on site containment measures proposed.
- (d) Application of risk management (ALARP) to lesser risks.
- (e) Proposed emergency management planning (spills, fills and other relevant hazards).
- (f) Proposed monitoring and maintenance schedules.
- (g) Compliance with relevant Codes of Practice and standards and relevant regional plan permitted activity performance standards/resource consents.





*Add the following new Discretionary Activity Rule to Section 12.1.4:*

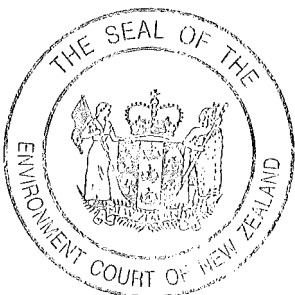
- Rule 12.1.4 (b) In the Rural industrial Zone, Rural Zone, Commercial Zone and Industrial Zone, new petroleum exploration and petroleum production activities where the  $1 \times 10^{-6}$  individual fatality risk contour is contained within the Petroleum Activity Risk Area.
- Rule 12.1.4 (c) In the Rural Zone for sites with no Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum exploration and petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour extends outside the Petroleum Activity Risk Area and does not contain any existing sensitive activities.
- Rule 12.1.4 (d) In the Rural Zone, alterations or additions to existing petroleum exploration and production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour extends outside the Petroleum Activity Risk Contour shown on the Planning Maps, and does not contain any existing sensitive activities.

*Add the following new Non-Complying Activity Rules to Section 12.1.5:*

- Rule 12.1.5 (b) In the Rural industrial Zone, Rural Zone, Commercial Zone and Industrial Zone, new petroleum exploration and petroleum production activities where the  $1 \times 10^{-6}$  individual fatality risk contour extends outside the Petroleum Activity Risk Area.
- Rule 12.1.5 (c) In the Rural industrial Zone and Rural Zone, alterations or additions to existing petroleum exploration and production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour extends outside the Petroleum Activity Risk Contour shown on the Planning Maps, and contains one or more existing sensitive activities.
- Rule 12.1.5 (d) In the Rural industrial Zone and Rural Zone for sites with no Petroleum Activity Risk Contour shown on the Planning Maps, alterations or additions to existing petroleum exploration and petroleum production activities where the new  $1 \times 10^{-6}$  individual fatality risk contour contains one or more existing sensitive activities.
- Rule 12.1.5 (e) In the Residential Zone and Township Zone, petroleum exploration and petroleum production activities not involving the use, storage or handling of hazardous substances.

*Add the following new Prohibited Activity Rules to Section 12.1.6:*

- Rule 12.1.6 (a) In the Residential Zone and Township Zone, petroleum exploration and petroleum production activities involving the use, storage or handling of hazardous substances.



### Section 3: Rural Zone Rules

Add the following new setback to Table 1 in Rule 3.2.2.1 Permitted Activity Performance Standard:

Type of activity	Minimum setback: State Highway	Minimum setback: Road boundary	Minimum setback: Other site boundaries	Maximum height	Additional setbacks/requirements
Dwelling unit, home occupation and other sensitive activities					<p>Minimum setbacks: 250m from wellsites which do not have a Petroleum Activity Risk Contour shown on the Planning Maps.</p> <p>For the purposes of this rule, the 250m distance is measured from the source of risk (i.e. location of existing or consented wellheads and/or surface production equipment,).</p> <p>650m from a petroleum production station/gas treatment plant which does not have a Petroleum Activity Facility Risk Contour shown on the Planning Maps.</p> <p>For the purposes of this rule, the 650m distance is measured from the security fence within which the hazardous substances are used and stored at the petroleum station/gas treatment plant.</p>

Add the following new Discretionary Activity Rule to Section 3.1.4:

- Rule 3.1.4 (x) Any additions or alterations of habitable rooms up to 20% of GFA to existing sensitive activity which is either:
- (i) within a Petroleum Activity Risk Contour shown on the Planning Maps, or
  - (ii) within 250m of a wellsite or 650m of a petroleum production station/gas treatment plant which does not have a Petroleum Activity Risk Contour shown on the Planning Maps.

The GFA to be at the date the District Plan is made operative.



*Add the following new Non-Complying Activity Rules to Section 3.1.5:*

- Rule 3.1.5 (d) Any new sensitive activity within 250m of a wellsite or 650m of a petroleum production station/gas treatment plant which does not have a Petroleum Activity Risk Contour shown on the Planning Maps.
- Rule 3.1.5 (e) Any new sensitive activity within a Petroleum Exploration or Petroleum Production Activity Risk Contour shown on the Planning Maps.
- Rule 3.1.5 (f) Any additions or alterations of habitable rooms 20% or greater of GFA to existing sensitive activity which is either:
- (i) within a Petroleum Exploration or Petroleum Production Activity Risk Contour shown on the Planning Maps; or
  - (ii) within 250m of a wellsite or 650m of a petroleum production station/gas treatment plant which does not have a Petroleum Activity Risk Contour shown on the Planning Maps.

The GFA to be at the date the District Plan is made operative.

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## **Section 20: Resource Consent Information Requirements and Assessment Matters**

*Add the following new Assessment Criteria to Section 20.5:*

### **20.5.28 Sensitive Activities Near Petroleum Exploration or Petroleum Production Activity**

An assessment of the risks to human health and risks of reverse sensitivity where a new sensitive activity is proposed within a Petroleum Activity Risk Contour or the additional setbacks/requirements from a petroleum exploration or petroleum production activity, the following information will be required:

- (a) The nature, magnitude and extent of risks of an emergency event from the petroleum exploration or petroleum production activity, including whether the proposed new sensitive activity is sited outside the area of Unacceptable Risk ( $1 \times 10^{-6}$ );
- (b) Consultation with the operator of the existing petroleum exploration or petroleum production activity, and their view on the nature and location of the proposed new sensitive activity in terms of level of risk and potential reverse sensitivity effects.

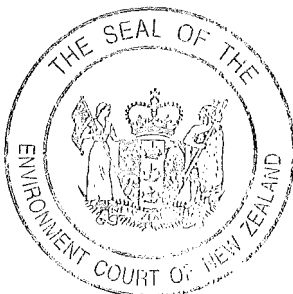


**Annexure B**

Amend Section 1.6 of the Proposed District Plan to include cross-referencing table.<sup>1</sup>

Objectives	Policies	Rules	Standards
2.8.3a	2.8.11(a)	12.1.4(b) 12.1.5(b)	
	2.8.11(b)	12.1.4(b) 12.1.5(b)	
	2.8.11(c)	12.1.4(b) 12.1.5(b)	
	2.8.11(h)	12.1.1(b), 12.1.1(bb), 12.1.1(c) 12.1.3(b), 12.1.3(bb), 12.1.3(c), 12.1.3(d) 12.1.4(c), 12.1.4(d) 12.1.5(c), 12.1.5(d)	
	2.8.11(XXX)	12.1.1(b), 12.1.1(bb), 12.1.1(c) 12.1.3(b), 12.1.3(bb), 12.1.3(c), 12.1.3(d) 12.1.4(c), 12.1.4(d) 12.1.5(c), 12.1.5(d)	
	2.8.11(YYY)	12.1.3(bb)	
	2.8.11(g)	12.1.3(b), 12.1.3(c), 12.1.3(d) 12.1.4(c), 12.1.4(d) 12.1.5(c), 12.1.5(d)	
	2.8.11(d)	12.1.5(e) 12.1.6(a)	
	2.8.11(e)	Planning Maps	
	2.8.11(f)	Planning Maps	
2.8.3b	2.8.11(i)	3.2.2.1 3.1.4(x) 3.1.5(d), 3.1.5(e), 3.1.5(f)	
	2.8.11(j)	3.2.2.1 3.1.4(x) 3.1.5(d), 3.1.5(e), 3.1.5(f)	

<sup>1</sup> STDC Memorandum dated 13 July 2020



## Annexure C

### **New method of implementation to be added to Section 2.8 Hazardous Substances:**

Identify on the Planning Maps an alert layer that is subject to the potential presence of contaminants from abnormal flare operation at a petroleum facility, which has the potential to cause acute health effects. As the probability of an acute health effect occurring is low, this alert layer (the Petroleum Flare Alert Area) is non-regulatory and no District Plan rules are triggered by it. This alert layer is measured 70 m from flares at well-sites and 300 m from flares at production stations.

### **New text to be added to the explanatory text at the start of Section 12 Hazardous Substances Rules:**

The Planning Maps contain an alert layer that is subject to the potential presence of contaminants from abnormal flare operation at a petroleum facility, which has the potential to cause acute health effects. As the probability of an acute health effect occurring is low, this alert layer (the Petroleum Flare Alert Area) is non-regulatory and no District Plan rules are triggered by it. This alert layer is measured 70 m from flares at well-sites and 300 m from flares at production stations. For information about the discharge to air from a flare, please contact the Taranaki Regional Council.

