

**2009 VICTORIAN BUSHFIRES ROYAL COMMISSION**  
**Letters Patent issued 16 February 2009**

**SUBMISSIONS ON THE COLERAINE FIRE**

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Date of Document: 27 January 2010  
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**Introduction**

1. These submissions are made on behalf of the State of Victoria (**the State**) in response to the submissions of Counsel Assisting the Commission dated 22 December 2009.

**Overview**

2. The Coleraine fire commenced at approximately 12:34<sup>1</sup> on 7 February 2009 in a paddock on a property located at 175 Balochile Road, Coleraine, approximately 5 kilometres west north west of the centre of Coleraine. The paddock contained stubble from a grain crop. The fire travelled in a south easterly direction mostly through grassland<sup>2</sup> at an average rate of spread of around 9 kilometres per hour.<sup>3</sup>
3. At about 12:55 there was a wind change and the fire turned in an easterly direction.<sup>4</sup> The forward run of the fire was contained very early in the afternoon<sup>5</sup> and the fire itself was contained at approximately 17:30 on the western side of the Coleraine-Balmoral Road.<sup>6</sup>
4. The perimeter of the fire was approximately 16 kilometres in length and covered an area of 792 hectares.<sup>7</sup> The losses from the Coleraine fire were limited

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<sup>1</sup> The first triple zero call about this fire was received at approximately 12:34: Speirs Ex 277, WIT.3004.014.0001, [32]. The reference to the evidence of Lawlor in Footnote 2 of the Submissions of Counsel Assisting does not relate to the Coleraine fire; Submissions of Counsel Assisting, SUBM.202.006.0001, [1.2].

<sup>2</sup> Speirs Ex 277, WIT.3004.014.0001, [31].

<sup>3</sup> Speirs Ex 277, WIT.3004.014.0001, [34].

<sup>4</sup> Speirs Ex 277, WIT.3004.014.0001, [35].

<sup>5</sup> Speirs T7519:23 – T7519:25.

<sup>6</sup> Speirs Ex 277, WIT.3004.014.0001, [39].

<sup>7</sup> Speirs Ex 277, WIT.3004.014.0001, [40].

compared to other fires in the State on 7 February consisting of 1 house, 2 large haysheds, several small hay storages, 3 tractors, one 40 foot trailer, one stock yard, 200 kilometres of fencing and the Coleraine Avenue of Honour (cypresses).<sup>8</sup>

### Fire fighting and preparations

#### Key finding proposed by Counsel Assisting

'10.7 The advanced planning and incident response in relation to the Coleraine fire was effective, with a large numbers of assets (including water bombing assets) being deployed to attack the fire within a short period of time. The result was that the run of the fire was stopped relatively quickly.'

#### Response of the State

The State supports proposed key finding [10.7].

5. Mr William Speirs, the Incident Controller, characterised the work undertaken by the firefighters to contain the forward run of the fire in quite steep country as 'tremendous'.<sup>9</sup> He attributed the success of the firefighting efforts generally to a number of factors, including:
  - (a) the use of the road as part of the firefighting tactics;<sup>10</sup>
  - (b) a combination of CFA and private tankers working together;<sup>11</sup>
  - (c) an excellent working relationship between the CFA and DSE, with all incident management teams being joint CFA/DSE teams;<sup>12</sup>
  - (d) the preparedness and preplanning that had gone on in the days prior to 7 February 2009;<sup>13</sup>
  - (e) the experience of the Incident Management Team (IMT) and the firefighters on the ground;<sup>14</sup>
  - (f) the training that has gone on over the last 10 years.<sup>15</sup>
6. The preparedness and preplanning for this fire included:

<sup>8</sup> Speirs Ex 277, WIT.3004.014.0001, [41].

<sup>9</sup> Speirs T7519:30.

<sup>10</sup> Speirs T7520:2 – T7520:30.

<sup>11</sup> Speirs T7520:11.

<sup>12</sup> Speirs T7523.

<sup>13</sup> Speirs T7520:13 – T7520:14.

<sup>14</sup> Speirs T7520:15 – T7520:18.

<sup>15</sup> Speirs T7520:23 – T7520:24.

- (a) the sending of a pager message to everyone in Region 4 setting out the predicted weather for 7 February and advising that 'Hot day response in place from midnight tonight. Tomorrow will be a day where a rapid response will be critical for success in all incidents';<sup>16</sup>
  - (b) predetermined Divisions in the Region for the 2008/2009 fire season and predetermined divisional and sector commanders for 7 February;<sup>17</sup>
  - (c) discussions on the morning of 7 February between the predetermined incident controller, operations officer, planning officer, divisional commanders and sector commanders to ensure that everyone:
    - (i) understood what their role was for the day;
    - (ii) was aware of the communications plan for the day, and in particular the radio channels that would be used; and
    - (iii) had appropriate vehicles;<sup>18</sup>
  - (d) ensuring that local brigades either had crews available to be called into the station or had crews on stand-by actually in the station;<sup>19</sup>
  - (e) teleconferences in the lead up to 7 February, including between the Chief Officer and the Operations Managers and between the CFA and the DSE, with one teleconference taking place to ensure that all agencies (including Victoria Police and the State Emergency Service) were prepared in terms of resourcing;<sup>20</sup>
  - (f) briefings on 7 February prior to the commencement of the Coleraine fire (as to weather conditions, other fires, resources and other matters) including in the MECC and with interstate fire services.<sup>21</sup>
7. As to the actual containment of the Coleraine fire, Mr Speirs noted that there were resources at the fire within minutes of its report and that there was a steady progression of resources devoted to the fire.<sup>22</sup> Mr Speirs also confirmed that warnings and messages concerning the fire were provided to the community and

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<sup>16</sup> See: Speirs Ex 277, WIT.3004.014.0001, [25] and *Pager Message from Peter Novotny to Region 4, sent at 17:15 on 6 February 2009*, Speirs (Annexure 4) Ex 277, WIT.3004.014.0040.

<sup>17</sup> Speirs Ex 277, WIT.3004.014.0001, [27].

<sup>18</sup> Speirs Ex 277, WIT.3004.014.0001, [27].

<sup>19</sup> Speirs Ex 277, WIT.3004.014.0001, [29].

<sup>20</sup> Speirs Ex 277, WIT.3004.014.0001, [30].

<sup>21</sup> Speirs Ex 277, WIT.3004.014.0001, [42]-[56].

<sup>22</sup> Speirs T7525:18 – T7525:19.

that he was on both 774 radio and local ABC radio conveying the message in relation to the fire.<sup>23</sup>

## Warnings

### Key findings proposed by Counsel Assisting

'10.9 The warnings issued by the ICC in relation to the Coleraine fire were generally timely and accurate. However, there was a delay of over 30 minutes between the request by the DIC for Urgent Threat Message 3 to be sent and that message actually being issued, and that threat message then was not uploaded to the CFA website by the iECC, with the consequence that several radio updates that occurred after Urgent Threat Message 3 was issued continued to refer to Urgent Threat Message 2. The result was that the warning that the DIC intended be issued to the communities in Douglas Road, Coleraine–Balmoral Road, Cavendish–Coleraine Road, Highlands Road and Melville Forest Road was not disseminated either as quickly or as effectively as it should have been.'

### Response of the State

The State agrees that a finding should be made that warnings are timely and accurate, but says that it is unnecessary to make any findings about any particular warning given the overall promptness with which warnings were issued, the effective way in which available resources were utilised in respect of the Coleraine fire and the fact that the State has already implemented recommendations by the Commission to enable Incident Control Centres to directly upload warning messages to the CFA and DSE websites.

## Cause of the fire

### Key findings proposed by Counsel Assisting

'10.2 The Coleraine fire was started by a 12.7kV conductor that was blown from its pole when the tie wire that attached the conductor to the insulator broke on 7 February.

10.3 The tie wire, which may have been the original tie wire installed in 1961 or 1962, broke as a result of fatigue, operating in combination with corrosion. It already had one break in it prior to 7 February, that break probably having occurred following the inspection in September 2004. (The extent to which the failure of the tie wire reflects systemic issue in the electrical distribution network will be addressed in submissions relation to systemic issues concerning electricity.)

10.4 Once the tie wire broke in a second location on 7 February, the wind blew the conductor from the insulator, and the conductor swung in the wind against both the side of the power pole and against the top branches of a tree that would

<sup>23</sup> Speirs T7525:27 – T7525:31.

have been outside the clearance space if the conductor had remained on its pole.

- 10.5 The contact with the tree caused arcing and burning in the tree, and that contact probably caused the fire. It is possible that the contact between the conductor and the pole also caused arcing, and a second point of origin of the fire at the base of pole 3.
- 10.6 The limitations on the electrical protection systems that can be installed on a SWER network contributed to the start of the Coleraine fire, because the protection devices on a SWER line are frequently unable (and in this specific case were unable) to distinguish between the current that flows to earth when a SWER conductor hits a tree or power pole, and the current that flows to earth as part of the ordinary operation of a SWER system. The result was that the conductor remained energised notwithstanding its repeated arcing against the tree and power pole, increasing the opportunity for that arcing to start the fire. The danger of fire starts of this kind is an inevitable consequence of the use of SWER lines.'

#### **Response of the State**

The State does not take issue with proposed key finding [10.2].

In respect of proposed key finding [10.3] the State submits that the Commission should be cautious about making any finding as to the reason the wire broke and whether it would have been detected in an inspection.

The State does not take issue with proposed key finding [10.4].

In respect of proposed key finding [10.5], submits that the evidence is very clear that the point of origin was around the base of pole 3 rather than from the cluster of trees in the gully.

The State does not take issue with proposed key finding [10.6] but says that there is no evidence as to the likelihood of this type of fire.<sup>24</sup>

8. The evidence supports a conclusion that the fire started after the securing tie (that attached the conductor to the insulator) on top of pole 3 broke, allowing the conductor to become detached from the insulator in a strong wind event.<sup>25</sup> The conductor itself did not break, nor did it require any repair.<sup>26</sup>

<sup>24</sup> It is to be noted that Counsel Assisting proceed on the basis that this type of fire start is unlikely – see first sentence of para [3.30] of submissions of Counsel Assisting.

<sup>25</sup> Knop Ex 257, WIT.3020.002.0133\_R, [45] and [48]; Counsel Assisting rely on the oral evidence of Mr Speirs to suggest that winds were gusting only to 60 kilometres per hour. However, it is to be noted that the witness statement of Rees Ex 4,

9. Mr Warren Knop, Compliance Officer with ESV concluded that there may have been two points of ignition following that event:
- (a) The conductor coming into intermittent contact with the foliage at the top of a tree (where there was a cluster of trees in a gully) causing arcing to occur between the conductor and tree and leading to the foliage igniting and burning.<sup>27</sup>
  - (b) The conductor having come into intermittent contact with the side of pole 3 causing arcing to occur between the conductor and the pole, which could have caused light burning timber material or sparks to fall from the point of contact.<sup>28</sup>
10. Sergeant Wayne Nagorcka, who was tasked with the job of working out the path of the fire and the point of origin with reference to natural indicators, provided a statement and report concluding that, irrespective of whether there were one or two points of ignition, the fire developed from around the base of pole 3 rather than from the area around the trees in the gully.<sup>29</sup> One of the most significant natural indicators that Sergeant Nagorcka relied on was the existence of a single small tree located approximately 100 metres to the south west of pole 3 which exhibited scorching to the side facing the pole indicating fire travel from the direction of the pole (as opposed to travel from the direction of the cluster of trees in the gully).<sup>30</sup>
11. Insofar as Counsel Assisting suggest that the point of origin of the fire was from contact with a tree (in the cluster of trees in a gully) rather than from around the base of pole 3, they are incorrect:
- (a) A point of ignition is not necessarily the same as the point of origin. The fact that at one point there was a possible point of ignition and some burnt foliage does not mean that the fire spread from this point;
  - (b) The tree referred to by Counsel Assisting is some distance from the immediate area of pole 3;

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WIT.004.002.0001, [64] states that winds were gusting up to 77.86 km/h before the change and 79.6 km/h after the change (at Hamilton AWS).

<sup>26</sup> Knop Ex 257, WIT.3020.002.0133\_R, [47].

<sup>27</sup> See: Knop Ex 257, WIT.3020.002.0133\_R, [53] and Knop T7553.

<sup>28</sup> See: Knop Ex 257, WIT.3020.002.0133\_R, [25] & [48(b)] and Knop T7553.

<sup>29</sup> See: Knop T7567:19 – T7567:30; Nagorcka Ex 289, WIT.3004.012.0001, [16] and *Fire Investigation Management System – Wildfire Report – Fire & Incident Reporting System (FIRS)*, Nagorcka (Annexure 1) Ex 289, WIT.3004.012.0007\_R.

<sup>30</sup> See: *Fire Investigation Management System – Wildfire Report – Fire & Incident Reporting System (FIRS)*, Nagorcka (Annexure 1) Ex 289, WIT.3004.012.0007\_R at 0013\_R; Knop T7567:25 – T7567:30.

- (c) Sergeant Nagorcka (whose evidence went unchallenged)<sup>31</sup> confirmed that fire did not travel from the tree that Counsel Assisting refer to as the point of origin;<sup>32</sup>
  - (d) Sergeant Nagorcka further confirmed that all indicators showed the fire travelled from the immediate area of pole 3;<sup>33</sup>
  - (e) The reliance by Counsel Assisting on the statement of Dr David Sweeting<sup>34</sup> is unhelpful as Dr Sweeting was not tasked with providing a report in respect of the Coleraine fire and did not give evidence in respect of the Coleraine fire;
  - (f) Mr Steven Cooper, whose evidence Counsel Assisting rely on for their version of the path of the fire,<sup>35</sup> does not have any experience in fire investigation. In comparison, Sergeant Nagorcka has extensive qualifications, training and experience in relation to fire investigation;<sup>36</sup>
  - (g) It was not put to Sergeant Nagorcka that the wind change may have confused the physical indicators as to the run of the fire<sup>37</sup> (notwithstanding an invitation by the State to have him called as a witness).<sup>38</sup> This submission by Counsel Assisting is entirely speculative;
  - (h) Counsel Assisting do not take into account the evidence of Sergeant Nagorcka as to the scorching on the single small tree located approximately 100 metres to the south west of pole 3.<sup>39</sup>
12. The fuse protecting the SWER circuit did not operate during the fault because the current flow through the contact with the side of the pole and/or the vegetation would have been insufficient because of the intermittent style or nature of that contact to create enough current flow to cause the fuse to operate.<sup>40</sup>

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<sup>31</sup> T7609:20 – T7609:31.

<sup>32</sup> *Fire Investigation Management System – Wildfire Report – Fire & Incident Reporting System (FIRS)*, Nagorcka (Annexure 1) Ex 289, WIT.3004.012.0007\_R at 0014\_R.

<sup>33</sup> *Fire Investigation Management System – Wildfire Report – Fire & Incident Reporting System (FIRS)*, Nagorcka (Annexure 1) Ex 289, WIT.3004.012.0007\_R at 0014\_R.

<sup>34</sup> The Submissions of Counsel Assisting also note that just because a particular type of fire start type is unlikely, it does not rule out the fire starting from that mechanism; Submissions of Counsel Assisting, SUBM.202.006.0001, [3.30]. Eg Dr Sweeting thought that the way the Kilmore East fire started was extremely rare – T11378:2 – T11378:4.

<sup>35</sup> Submissions of Counsel Assisting, SUBM.202.006.0001, [3.27].

<sup>36</sup> Nagorcka Ex 289, WIT.3004.012.0001, [7]-[10].

<sup>37</sup> Submissions of Counsel Assisting, SUBM.202.006.0001, [3.30].

<sup>38</sup> T7609:20 - T7609:31.

<sup>39</sup> See: *Fire Investigation Management System – Wildfire Report – Fire & Incident Reporting System (FIRS)*, Nagorcka (Annexure 1) Ex 289, WIT.3004.012.0007\_R at 0013\_R and Knop T7567:25 – T7567:30.

<sup>40</sup> Knop T7568.

13. The tree from the cluster of trees in the gully that the conductor may have come into contact with was located approximately 4.2 metres from the line on the eastern side, and about equal distance from both pole 3 and pole 4. The suspended conductor was probably eight to nine metres above the top of the tree in its normal position.<sup>41</sup> Given the location of the tree in relation to the line and the poles, the tree was outside the required line clearance zone<sup>42</sup>
14. Pole 3 was constructed in 1962<sup>43</sup> and had been last inspected and tested in September 2004.<sup>44</sup> At the time of the fire on 7 February 2009 the pole had therefore been inspected within the five year maximum inspection cycle applied by Powercor.
15. Counsel Assisting have made some submissions as to the cause of the tie wire breaking and the possibility for detection of breaks during inspection. ESV has not investigated the cause of the break (or breaks), as it has not had access to the material over which Powercor claims legal professional privilege and is awaiting the completion of the Royal Commission inquiry.<sup>45</sup> As to the possibility of the detection of breaks during inspection and the relevance of the inspection cycle, it is important to bear in mind:
- (a) There is evidence that the only way to detect a potential fatigue break due to a microscopic fatigue crack would be to unravel the tie wire, take it off and replace it;<sup>46</sup>
  - (b) There is evidence of improvements which have been made to the inspection process and the technology utilised in that process. These matters will be addressed in the State's Submissions on the systemic issues concerning electricity.

### Traffic Management Points (TMPs)

#### Key finding proposed by Counsel Assisting

'10.8 The TMPs that were in place in relation to the Coleraine fire appear to have been operated in accordance with the agreed guidelines between the CFA, DSE and Victoria Police. In practice, however, those guidelines had the effect of hindering efforts to fight the fire, because private fire fighting appliances were prevented from reaching the fire ground, and a truck carrying fire retardant to Hamilton airport was likewise delayed at a TMP.'

<sup>41</sup> Knop Ex 257, WIT.3020.002.0133\_R, [33].

<sup>42</sup> Knop Ex 257, WIT.3020.002.0133\_R, [34].

<sup>43</sup> Knop Ex 257, WIT.3020.002.0133\_R, [20].

<sup>44</sup> Knop Ex 257, WIT.3020.002.0133\_R, [21].

<sup>45</sup> Knop T7554:26 - T7555:10.

<sup>46</sup> Knop T7561:1 - T7561:4.

**Response of the State**

The State supports the first part of proposed key finding [10.8]. However, the proposed key finding and the submissions of Counsel Assisting in respect of TMPs are unbalanced in that they do not sufficiently address matters such as the reasons for initiating and managing TMPs, the reasons for requiring appropriate identification of those seeking to pass through TMPs and the dangers associated with travel through a fire.

Proposed key finding [10.8] should be balanced with others findings as to:

- (a) matters such as the dangers associated with travel through a fire;
- (b) the fact that there was good cooperation between the CFA and private firefighters;
- (c) the fact that restrictions to movements by reason of TMPs did not prevent a very successful fire fighting effort;
- (d) the fact that extensive engagement with the community and stakeholders have been undertaken regarding the TMO Guidelines with the result that new guidelines have been formulated to address the issues raised regarding the implementation of TMPs on 7 February 2009.<sup>47</sup>

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Dated: 27 January 2010

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<sup>47</sup> Walshe Ex 540, WIT.3010.009.0300.