The Prisoner Ombudsman for Northern Ireland

REPORT BY THE PRISONER OMBUDSMAN

INTO THE CIRCUMSTANCES

SURROUNDING THE DEATH OF

A PRISONER FROM MAGILLIGAN PRISON

IN CAUSEWAY HOSPITAL, COLERAINE

ON 8 FEBRUARY 2007

8 OCTOBER 2010

[Published: 27 October 2010]

Please note that where applicable, names have been removed to anonymise the following report

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PREFACE

This is my report into the circumstances surrounding the death of Prisoner A who was 64 years old when he transferred to the Causeway Hospital from Magilligan Prison on 29 January 2007 and died in Hospital on 8 February 2007.

This was a joint investigation carried out by the Prisoner Ombudsman's Office and the Health and Safety Executive Northern Ireland because of the presence of Legionella at Magilligan Prison.

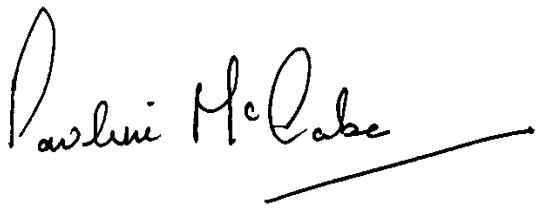
As an integral part of the investigation, I commissioned a clinical review to be carried out into Prisoner A's healthcare treatment in prison. I am grateful to Professor Michael Pearson who carried out the review.

I delayed finalising my own investigation report pending completion of the Health and Safety Executive's report and associated Crown Censure proceedings, which took place on 8 June 2010.

I have shared the findings of my investigation report with the family solicitor of Prisoner A.

At the request of his family, the Prisoner to whom this report refers has, throughout this report, been called Prisoner A.

As a result of my investigation, I make **one** recommendation to the Northern Ireland Prison Service.



PAULINE MCCABE

Prisoner Ombudsman for Northern Ireland

8 October 2010

SUMMARY OF INVESTIGATION

Prisoner A was committed to prison on 4 October 2004 at the age of 61. He was initially committed to Maghaberry Prison before being transferred to Magilligan Prison on 21 July 2005. His earliest date of release would have been 30 September 2008.

In late 2005, Prisoner A developed ill health symptoms, leading to a referral to head and neck surgeons who diagnosed a tumour of his larynx. The tumour was found to be large with significant spread to lymph nodes beyond the local area.

Prisoner A underwent a major operation for this on 14 February 2006, followed by courses of chemotherapy and radiotherapy. He returned to Maghaberry Prison following his surgery and was located in the prison healthcare centre, in order to facilitate his ongoing outpatient visits to the Royal Victoria Hospital Belfast.

Prisoner A transferred back to Magilligan Prison on 18 May 2006 having completed his radiotherapy treatment. He was placed in the inpatient unit of the healthcare centre of Magilligan Prison for continued treatment and observation.

Prisoner A's operation and treatment initially seemed to have been successful. A surgical follow up was satisfied with his progress. By August 2006, however, even though a further medical follow up reported no new tumour to be apparent, Prisoner A was beginning to get symptoms. By October 2006, the nursing notes indicate concerns about Prisoner A's low mobility, poor appetite and pain control.

Over the next couple of months, staff continued to be concerned at his poor appetite and weight loss and his limited success in achieving improvements in appetite and mobility.

In January 2007, Prisoner A was experiencing respiratory and pneumonia symptoms and his oxygen saturation level was compatible with a mild infection. He did not respond to antibiotics and on 29 January 2007, was transferred from Magilligan Prison to the Causeway Hospital Coleraine.

Within 48 hours of his admission to hospital, Prisoner A was transferred to Intensive Care. After a further 48 hours he was determined to be '*not for further resuscitation*'.

Prisoner A's health gradually deteriorated and he died on 8 February 2007 at the Causeway Hospital.

In respect of the overall medical care and attention provided to Prisoner A within prison, Professor Michael Pearson, said that: *"Prison Healthcare staff monitored Prisoner A closely and acted quickly and appropriately in arranging for him to be transferred to outside hospital when his condition deteriorated. I do not think the medical centre staff, could have done more to prevent his pneumonia, or his death."*

Professor Pearson concluded that Prisoner A's treatment *"was appropriate and reasonable and appears to have been better than adequate."*

In relation to Prisoner A's cause of death, Professor Pearson said:

"This is the sad tale of a man who developed throat cancer, which was already too advanced at the initial resection for it to be cured. Within six months he was experiencing symptoms from the recurrence and over the following six months, he followed a remorseless downhill course. Pneumonia was always likely to be the final cause of death."

An autopsy was carried out on 9 February 2007. The cause of death was recorded as:

I (a) LEGIONNAIRE'S DISEASE

II Metastatic Carcinoma of Larynx

The Autopsy report also concluded that: "*Death was clearly due to natural causes."*

The Legionella was subsequently identified as being from the Sero 1 Subgroup Bellingham.

Legionella bacterium was first discovered in Prisoner A's body on 7 February 2007, following analysis of a urine sample at the Causeway Hospital. An investigation was commenced to establish the source. On 8 February 2007, water samples were taken at Magilligan Prison by Limavady Environmental Health Department.

On 15 February 2007, the Health and Safety Executive advised that samples taken from Magilligan's Healthcare Centre's water supply were heavily contaminated with Legionella bacterium. The Healthcare Centre was immediately closed and the prisoners were moved to another location. Notices were also issued to staff and prisoners providing information about Legionella.

On 16 February 2007, a meeting took place with representatives from the Prison Service, the Western Health and Social Services Board, Health and Safety Executive for Northern Ireland, Limavady Borough Council, the Department of Finance and Personnel and the outside contractor responsible for carrying out water sampling on behalf of the Prison Service. The purpose of the meeting was to discuss the presence of Legionella bacterium at Magilligan Prison.

The meeting discussed a wide range of issues and agreed a range of action points.

At a meeting on 1 March 2007, the particular strain of Legionella bacterium found at Magilligan Prison was identified as Sero Group 1 Subgroup Bellingham.

In his clinical review, Professor Pearson commented that *"The finding of the same strain of Legionella bacterium in the prison environment and in the lungs of Prisoner A make it highly probable that his pneumonia was caused by infection within the prison."*

The Prison Service responded to this comment, saying that whilst this was *"probable"*, it was not conclusive.

The Prisoner Ombudsman investigation into Prisoner A's death was carried out jointly with the Health and Safety Executive of Northern Ireland. The Health & Safety Executive took the lead on matters related to Legionella.

The Health & Safety Executive investigation identified concerns in the following areas in connection with the arrangements for monitoring and managing the prevention of Legionella at Magilligan Prison:

- The adequacy of arrangements for risk assessment.
- Clarity around roles and responsibilities.
- Staff Training.
- Management arrangements for responding to identified risks.
- Quality Assurance.

Since the death of Prisoner A, the Northern Ireland Prison Service have taken action in respect of each of these areas.

As a result of the findings of the Health & Safety Executive a meeting was arranged on 8 June 2010 to conduct a Crown Censure. At the conclusion of the meeting, the Northern Ireland Prison Service were formally censured. The Prison Service accepted the censure but argued that mitigating factors needed to be considered.

Full details of this meeting and its findings were published and are available on the NIPS, Health & Safety Executive and Prisoner Ombudsman websites. I have not, therefore, duplicated the content in this report.

Speaking about Prisoner A the Chairman of the Crown Censure said that whilst he accepted that he was an ill man:

"I also believe that no one under any circumstances should be exposed to Legionella bacteria and indeed a view could be taken that a very ill man like Prisoner A should have been afforded the highest levels of protection available against any such exposure. He had the right to live as long as possible and when his care was entrusted to the State he

should not have been exposed to anything which would have shortened his life in any way".

When Professor Pearson was made aware of the finding of unacceptable levels of Legionella at Magilligan Prison, he added an addendum to his report in which he concluded:

"*My conclusion is essentially unchanged – I remain of the view that the underlying cause of death was the cancer which was already causing severe symptoms and which would have soon ended his life shortly – regardless of any exposure.*

There should not have been Legionella within the prison and there are issues that arise from this finding that go beyond the case of Prisoner A. But while the Legionella pneumonia may have hastened death, it is highly probable that he would have contracted some other infection or simply wasted away due to his underlying cancer state regardless of the hygiene state within the prison within days or weeks (but probably not months).

I still do not think the medical centre staff, or indeed the acute hospital, could have done more to prevent the pneumonia or his death."

Acknowledgement

I am aware that the Manager of Magilligan Healthcare Centre at the time of Prisoner A's death, attended the Causeway Hospital during Prisoner A's final hours and sat with him to provide company and comfort. I would like to recognise and commend the healthcare manager for his compassion and the support he provided to Prisoner A.

RECOMMENDATIONS TO THE PRISON SERVICE

In light of my findings and the observations of the clinical reviewer, I make **one** recommendation to the Northern Ireland Prison Service.

Recommendation 1

I recommend that the Prison Service carries out a full audit of the changes implemented to address the areas of concern identified by the Health & Safety Executive Northern Ireland. The audit should be designed to ensure that the current arrangements for monitoring and managing the prevention of Legionella are fully fit for purpose.

INTRODUCTION TO THE INVESTIGATION

Responsibility

1. The Prisoner Ombudsman[1] for Northern Ireland has responsibility for investigating the death of Prisoner A who was transferred from Magilligan Prison and died in Causeway Hospital, Coleraine on 8 February 2007. The Prisoner Ombudsman's Terms of Reference for investigating deaths in prison custody in Northern Ireland are attached as Appendix 1.

2. The Prisoner Ombudsman is independent of the Prison Service and her investigation provides enhanced transparency to the investigative process following any death in prison custody. It also contributes to the investigative obligation under Article 2 of the European Convention on Human Rights.

Objectives

3. The objectives for the investigation into Prisoner A's death are:

- To establish the circumstances and events surrounding his death, including the care provided by the Prison Service
- To examine any relevant healthcare issues and assess clinical care afforded by the Prison Service
- To examine whether any change in Prison Service operational methods, policy, practice or management arrangements could help prevent a similar death in future

[1] The Prisoner Ombudsman took over the investigations of deaths in prison custody in Northern Ireland from 1 September 2005.

- To ensure that Prisoner A's family have the opportunity to raise any concerns that they may have and that these are taken into account in my investigation

- To assist the Coroner's inquest.

INVESTIGATION METHODOLOGY

Notification

4. On 8 February 2007 the Prisoner Ombudsman's predecessor, Brian Coulter, was notified by the Prison Service about Prisoner A's death in the Causeway Hospital, Coleraine.

5. Prisoner A was in the custody of the Northern Ireland Prison Service up until his death. Pauline McCabe replaced Brian Coulter as Prisoner Ombudsman on 1 September 2008, and subsequently took over the investigation into Prisoner A's death in custody.

Notices of Investigation

6. Notices of Investigation were issued on 9 February 2007 to Prison Service Headquarters and to staff and prisoners at Magilligan Prison, announcing the investigation, and inviting anyone with information relevant to Prisoner A's death to contact the investigation team.

Family Liaison

7. An important aspect of the role of Prisoner Ombudsman dealing with any death in custody is to liaise with the family.

8. The Prisoner Ombudsman's predecessor, Brian Coulter, tried on a number of occasions to make contact with Prisoner A's family. Prisoner A was estranged from his family. Mr Coulter

was able to confirm that all communication with the family was being directed through a solicitor.

9. Mr Coulter wrote to the family solicitor on two occasions to ascertain whether or not they had any concerns about Prisoner A's care or treatment by the Prison Service. There was no response received to this correspondence.

Post Mortem Report

10. A post mortem carried out on 9 February 2007 concluded that the cause of Prisoner A's death was:

I(a) LEGIONNAIRE'S DISEASE
II Metastatic Carcinoma of Larynx

Health and Safety Executive

11. As Prisoner A's primary cause of death was recorded as Legionnaire's Disease, the State Pathologist's Department, who carried out the autopsy, had a statutory obligation to report it to the Health and Safety Executive for Northern Ireland. The Prison Service provided full access to the Health and Safety Executive to enable them to carry out a full investigation.

12. Mr Coulter met with the Principal Inspector from the Health and Safety Executive and it was agreed that a joint investigation would avoid duplication of effort.

Working together with interested parties

13. An integral part of any of the Prisoner Ombudsman's investigations is to work together with all the interested parties involved. An investigator worked closely with the Health and Safety Executive for Northern Ireland and Limavady PSNI.

Prison Records and Interviews

14. Magilligan Prison was visited on numerous occasions by an investigator who met with prison management and healthcare Staff. All the prison records relating to Prisoner A's period of custody, including his medical records were retrieved and analysed.

15. The investigator also attended witness interviews carried out by the Health and Safety Executive.

Clinical Review

16. There was a substantial amount of documentary information about Prisoner A's health contained in his custody records. This included records of his medical care and treatment throughout his time in the Northern Ireland Prison system.

17. As part of the investigation into Prisoner A's death, Professor Michael Pearson, Consultant Physician at Aintree University Hospitals, was commissioned to carry out a clinical review of Prisoner A's healthcare needs and medical treatment whilst in prison.

18. Professor Pearson was also asked to address some questions raised by the Health and Safety Executive. The Prisoner Ombudsman is grateful to Professor Pearson for his assistance.

Factual Accuracy Check

19. The Prisoner Ombudsman submitted the draft report into Prisoner A's death to the Director of the Northern Ireland Prison Service and South Eastern Health and Social Care Trust for a factual accuracy check.

20. The Prison Service and Trust responded with a list of comments for the Prisoner Ombudsman's consideration. These have been fully considered and amendments have been made where this was considered to be appropriate.

BACKGROUND INFORMATION

Magilligan Prison

21. Magilligan is a medium security prison housing sentenced adult male prisoners. It also has low security accommodation for selected prisoners nearing the end of their sentence.

22. Magilligan Prison was opened in 1972 and major changes were made in the early 1980s. Three H-Blocks, the newly constructed Halward House and the low-security temporary buildings of Foyleview, Sperrin and Alpha make up the present residential accommodation. Magilligan Prison is one of three detention establishments managed by the Northern Ireland Prison Service, the others being Maghaberry Prison and Hydebank Wood Prison and Young Offenders Centre.

23. Magilligan Prison accommodates adult males who have between six years and one year of their sentence left to serve.

Healthcare Centre – Magilligan Prison

24. Prisoner A spent the last 10 months of his life in the healthcare centre in Magilligan Prison. The healthcare centre included an eight bed inpatient unit and a primary care unit. The primary care unit comprised of a safe storage room for drugs and medication, treatment rooms, an x-ray department and a doctor's consultation room.

25. Since Prisoner A's death a new healthcare centre has been built at Magilligan Prison. It has a treatment room, three consulting rooms and two offices. There are, however, no in-patient facilities. Any prisoner requiring in-patient treatment is transferred to the Causeway Hospital in Coleraine or to the healthcare centre in Maghaberry Prison, which has an inpatient facility.

Prison Service Policies

26. A summary of Prison Service policies and procedures relevant to the investigation into Prisoner A's death are attached as Appendix 2 and are available from the Prisoner Ombudsman's Office on request.

FINDINGS

SECTION 1: PRISONER A'S CARE BEFORE HIS DEATH

1. Prisoner A's Time in Prison

Prisoner A's was committed to Maghaberry Prison on 4 October 2004 at the age of 61. He was transferred to Magilligan Prison on 21 July 2005. His earliest date of release would have been 30 September 2008.

During Prisoner A's time in prison he spent most of his time on the Enhanced Regime under PREPS[2]. He underwent and passed mandatory drug testing in connection with this.

Throughout his time both at Maghaberry and Magilligan Prisons, records indicate that Prisoner A's was a quiet individual who caused no problems.

Typical examples of staff reports are "*when dealing with staff is pleasant and cooperative*", "*Prisoner A is quiet and keeps himself to himself, asks for very little and just gets on with his lot*", "*another quiet month for Prisoner A, causes no bother for anyone and as long as he gets to read a paper or a book he is content*".

In line with the requirements of the Prison Service's 'Resettlement Strategy 2004' a Resettlement Plan was in place

[2] PREPS – Progressive Regime and Earned Privileges –PREPS hinges on motivating prisoners to engage with the constructive activities outlined on their agreed resettlement plan. Constructive activities include any form of training, education, work or other activity, as specified on the plan. PREPS works towards these objectives of allocating privileges according to different regime levels. Privilege and regime levels are based on a three tier system: Basic, Standard and Enhanced

for Prisoner A which identified appropriate education programmes and therapy programmes he could take part in.

Prisoner A was working through his Resettlement Plan and engaged positively with Northlands[3] and the Prison Psychology Service. He attended an education workshop where he completed an 'Essential Skills' course.

Prisoner A also attended and enjoyed an Art Skills and Therapy class. However, it is recorded that in March 2006 he had to leave this programme due to his deteriorating medical condition.

1a. Prisoner A's prison record suggests that he caused no problems and was on an enhanced privilege regime.

1b. The Prison Service had a formal Resettlement Plan in place for Prisoner A. He was working through this successfully.

1c. Prisoner A was provided with education and training programmes as part of his Resettlement Plan.

[3] Northlands – An organisation specialising in working with and providing treatment for prisoners with drugs and alcohol problems. Northlands work in partnership with staff at Magilligan Prison to develop its work as part of the Drug and Alcohol Strategy.

2. Prisoner A's Health

In late 2005, Prisoner A developed ill health symptoms, leading to a referral to head and neck surgeons who diagnosed a tumour of his larynx. The tumour was found to be large with significant spread to the lymph nodes beyond the local area. Prisoner A underwent a major operation for this condition on 14 February 2006. This was followed by courses of chemotherapy and radiotherapy. Prisoner A returned to Maghaberry Prison following his surgery and stayed in its healthcare centre in order to facilitate his ongoing outpatient visits to the Royal Victoria Hospital, Belfast.

Prisoner A transferred back to Magilligan Prison on 18 May 2006 having completed his radiotherapy treatment. He was placed in the inpatient unit of the healthcare centre of Magilligan Prison for continued treatment and observation.

Prisoner A's operation and treatment initially seemed to have been successful. A surgical follow up was satisfied with progress. By August 2006, however, even though a further medical follow up reported no new tumour to be apparent, he was beginning to get symptoms. By October 2006, the nursing notes indicate concerns about Prisoner A's low mobility, poor appetite and pain control.

Over the next couple of months staff were clearly concerned at his poor appetite and weight loss and had limited success in achieving improvements in his appetite and mobility.

In January 2007, Prisoner A was experiencing respiratory and pneumonia symptoms and his oxygen saturation level was compatible with a mild infection. Prisoner A did not respond to antibiotics and on 29 January 2007, he was transferred from Magilligan Prison to the Causeway Hospital Coleraine.

Within 48 hours of his admission to hospital, Prisoner A was transferred to Intensive Care. After a further 48 hours he was determined to be '*not for further resuscitation*'.

An autopsy was carried out on 9 February 2007. The cause of death was recorded as:

I (a) LEGIONNAIRE'S DISEASE

II Metastatic Carcinoma of Larynx

The Autopsy report also concluded that: "*Death was clearly due to natural causes.*"

A sample of tissue taken from Prisoner A's lung subsequently identified the Legionella as being from the Sero Group 1 subgroup Bellingham.

Professor Michael Pearson, who carried out a clinical review of Prisoner A's healthcare treatment whilst he was in prison, said that Prisoner A was "*clearly monitored and once deterioration was apparent it would seem the transfer occurred quite briskly and entirely appropriately*."

Prisoner A had been estranged from his family, but the investigation established that, during his last hours in the

Causeway Hospital, the Healthcare Manager at Magilligan attended the hospital to sit with him and provide some comfort.

2a. Prisoner A underwent a major operation for a tumour on 14 February 2006. This was followed by chemotherapy and radiotherapy.

2b. Following a deterioration of his condition, Prisoner A was admitted to the Causeway Hospital on 29 January 2007. He died in hospital on 8 February 2007.

2c. The clinical reviewer found that prison healthcare staff monitored Prisoner A closely and acted quickly and appropriately in arranging for him to be transferred to outside hospital.

2d. The Magilligan Prisoner Healthcare Manager attended the Causeway Hospital during Prisoner A's final hours to provide company and comfort.

SECTION 2: INCIDENT MANAGEMENT - LEGIONELLA

3. Environmental Health Care Agencies Visit to Magilligan

Legionella bacterium was first discovered in Prisoner A's body on 7 February 2007 following analysis of a urine sample at the Causeway Hospital. On 8 February 2007, after speaking with the Governor the previous day, representatives of the local Environmental Health agencies, as well as a doctor from the Western Health & Social Services Board attended Magilligan Prison.

It was explained to the Governor that Prisoner A had shown respiratory and pneumonia symptoms which were not responding to antibiotics, and that test results had, revealed the presence of the Legionella bacterium. The prison was advised that the incubation period from infection to the disease developing is between two to ten days, but commonly between five to six days. It was explained that Prisoner A could have contracted this organism in hospital, or whilst in the Magilligan healthcare centre. Prisoner A's health was so poor, and his immune system so low, that he would have been very susceptible to infection.

The Magilligan Prison healthcare manager gave details of the washing facilities in the healthcare centre and there was some discussion in relation to other vulnerable prisoners in the unit, although it was clarified that none of these prisoners had ever shown, symptoms of Legionella. The doctor enquired if any member of healthcare staff had been off with flu-like symptoms

that had not responded to treatment and he was informed that one of the healthcare officers was currently off with flu and had been feeling unwell. The doctor advised that this officer should go to hospital to be checked, as a precautionary measure. Arrangements were then made directly with Belfast City Hospital for tests to be carried out. It was subsequently confirmed that the officer did not have Legionella.

The doctor went on to advise that person to person transmission of Legionella has never been demonstrated. There was, he said, minimal risk of transfer from Prisoner A or anyone else who might, unknowingly, be carrying this organism. He added that there was no need to isolate the accommodation in which Prisoner A had been held in healthcare, nor was there a need to move any prisoners to other locations.

Legionella Testing at Magilligan

On 8 February 2007, water samples were taken at Magilligan Prison by Limavady Environmental Health Department. The result of the water sampling, received on 15 February 2007, showed that the Healthcare Centre at Magilligan prison was heavily contaminated with Legionella bacterium.

The Prison Service decided to take immediate action to remove all prisoners from the in-patient unit within the Healthcare Centre at Magilligan Prison and transfer them to another location.

Staff and Prisoner Meetings

Following the death of Prisoner A on 8 February, and in line with the Prison Service's policy for managing Deaths in Custody, the Governor held meetings with staff to explain the circumstances of his death and the resulting Health and Safety Executive investigation into the origin of the Legionella. The Governor also held meetings with groups of prisoners.

In addition, notices were issued to staff and prisoners providing information about Legionella.

Crown Prohibition Notice

On 16 February 2007, the Health & Safety Executive served a Crown Prohibition Notice on the Northern Ireland Prison Service. This had the effect of closing the healthcare centre at Magilligan Prison until matters associated with the prevention and management of Legionella were addressed.

Meeting of Interested Parties

On 16 February 2007, a meeting took place with representatives from the Prison Service, the Western Health and Social Services Board, Health and Safety Executive for Northern Ireland, Limavady Borough Council, the Department of Finance & Personnel and the outside contractor responsible for carrying out water sampling on behalf of the Prison Service. The purpose of the meeting was to discuss the presence of Legionella bacterium at Magilligan Prison.

The meeting discussed a wide range of issues and agreed the following minuted actions:

- *All prisoners will now be removed from the SSU, as it is on the same water system as the healthcare centre (this has already been done).*
- *Reception, which is, again, on the same system, will be used only as an admin facility – the showers will not be used.*
- *NIPS will move immediately to reduce the risk – there are a total of 11 different water supply systems in Magilligan; over the weekend (the outside contractor) will take a number of further samples from each one and these will be sent to their lab on Monday. (Presumptive results should be available within about 5 days – confirmation within 10).*
- *(The outside contractor) will also begin tomorrow a shot-dosing of each of the systems, starting with the Healthcare system. This will immediately reduce (by up to 80% any existing level of Legionella infection).*
- *Re-sampling will then be done after 2 days, and again as often as is necessary until safe levels prevail.*
- *(The outside contractor) will then draft a programme for further action which will be taken forward with NIPS and colleagues in the HSENI and so on.*
- *(The outside contractor) will also bring forward their reassessment of Magilligan's systems, programmed for June, and look at what can be done to increase the robustness of the NIPS systems across all of the Prison establishments.*
- *NIPS technical staff will then take forward any necessary system changes across our estate.*

The action taken as a result of the above plan was considered as part of the investigation by the Health and Safety Executive into this matter.

Meeting of the Multi-Agency Group on 1 March 2007

At a meeting on 1 March 2007, the particular strain of Legionella bacterium found at Magilligan Prison was identified as Sero Group 1 Subgroup Bellingham. The Northern Ireland Prison Service advised the investigation that, at that meeting, it was also confirmed that a secondary disinfection system – envirox – would shortly be installed to the incoming water mains at the site and that a review of the certification process for water management in NIPS would be introduced.

As stated earlier, a tissue sample taken from Prisoner A confirmed the presence of the Legionella bacterium "Bellingham".

In his clinical review, Professor Michael Pearson commented that *"The finding of the same strain of Legionella bacterium in the prison environment and in the lungs of Prisoner A make it highly probable that his pneumonia was caused by infection within the prison."*

The Prison Service responded to this comment, saying that whilst this was *"probable"*, it was not conclusive.

3a. Water samples from Magilligan Prison were tested and it was found that the water system in the Health Centre was contaminated with Legionella.

3b. The Governing Governor held de-brief meetings with staff and prisoners to explain the circumstances surrounding Prisoner A's death, in line with Prison Service policy.

3c. The Prison Service took immediate action to remove all inpatient prisoners from the healthcare centre at Magilligan Prison.

3d. On 16 February 2007 a Crown Prohibition Notice had the effect of closing the health centre.

3e. The Prison Service held a meeting with representatives from relevant organisations and agencies and formalised an Action Plan.

SECTION 3: THE CLINICAL REVIEW REPORT

4. Findings

Professor Michael Pearson was commissioned to carry out a clinical review of Prisoner A's healthcare in Magilligan Prison. Professor Pearson was asked to provide his opinion with regard to Prisoner A's care and transfer to outside hospital.

The Health and Safety Executive also asked Professor Pearson to address a number of issues relating to, the impact of Prisoner A's illness, medication and treatment on his susceptibility to contracting Legionnaires Disease and what activities might have resulted in him inhaling the organism. The Health & Safety Executive considered Professor Pearson's answers when preparing its report.

Professor Pearson produced his report on 3 April 2008. When he was later made aware that Legionella had been found at Magilligan Prison he produced an annex to his report.

Professor Pearson said the following:

- The major underlying cause of Prisoner A's death is undoubtedly the carcinoma.

- The final pneumonia leading to death within 10 days was an acute and aggressive pneumonia that is quite typical of a Legionella infection. It often responds poorly to treatment and is known to have a high fatality rate. In a poorly nourished individual with an extensive tumour, the response rate will be even lower.

- I have reviewed the overall healthcare provided to Prisoner A in the period after he had his tumour removed. The notes are limited but show specific attention to the detail of the problems after surgery, show attention to his pain relief, his poor nutrition and to his limited mobility. He was seen by medical staff and their responses appear appropriate and reasonable. In short the care appears to have been better than adequate.

- I could not expect the staff in the Prison to suspect Legionnaire's disease within the final illness. The start of the illness when he was seen by the doctor was of a straightforward mild chest infection that gave no cause for alarm. Within forty-eight hours his pneumonia had worsened and he was sent to hospital.

- There is no easy way of dealing with the immune suppression caused by recurrent cancer. It is not the same as immune suppression induced by drugs where there are no white blood cells to fight infection. The latter would require isolation and special nursing facilities but we would not normally nurse the cancer patient in a special way. As stated above Prisoner A's advanced tumour rendered him much more susceptible to any infection of any sort, but his susceptibility was not affected by his medication.

- It is noted, shortly before his final illness that Prisoner A had had a shower and if the shower had been contaminated with Legionella that could indeed have been

a cause. If the showers were shown to be infected, then presuming he was showered weekly or twice weekly, that would certainly be within the potential incubation period. But the organism might have been within a drink of water or fruit juice.

- It is impossible to say exactly when the Legionella took hold, but it is likely that infection occurred a few days before the final illness eg somewhere around the 27th January 2007. Incubation can be up to 14 days prior to illness."

In his final comments Professor Pearson says:

"This is the sad tale of a man who developed throat cancer, which was already too advanced at the initial resection for it to be cured. Within six months he was experiencing symptoms from the recurrence and over the following six months, he followed a remorseless downhill course. Pneumonia was always likely to be the final cause of death, particularly with an oesophago-tracheal fistula being present."

When Professor Pearson was advised that Legionella had been found at Magilligan Prison, he wrote an addendum to his report. This included the following:

"The finding of the same strain of Legionella bacterium in the prison environment and in the lungs of Prisoner A make it highly probable that his pneumonia was caused by infection within the prison. He was already severely ill and thus more vulnerable than others to catching such an infection which may explain why

there has not been a significant outbreak involving other inmates or staff reported.

My comments regarding the probability that there was a recurrent tumour present and comments regarding the seriousness of an oesophago-tracheal fistula still stand and had he not developed pneumonia, he had a limited life expectancy. The downward progression is well documented. The pneumonia probably did shorten his life but is difficult to say by how much. He might have developed an aspiration pneumonia (related to the fistula) at any time and had similarly terminal pneumonia from one of the many other possible organisms. Had he avoided that complication, he would perhaps have lived a few more weeks (weight loss is a markedly adverse prognostic feature), and its possible but not likely that he might have lived a few months.

The staff in the prison would not have had reason to suspect Legionella infection (unless there had been prior cases in the recent past) and most pneumonias would therefore NOT be expected to be due to that organism. Standard treatments as were applied were reasonable.

My conclusion is essentially unchanged – I remain of the view that the underlying cause of death was cancer which was already causing severe symptoms and which would have soon ended his life shortly – regardless of any exposure.

There should not have been Legionella within the prison and there are issues that arise from this finding that go beyond the case of Prisoner A… but while the Legionella pneumonia may have hastened death, it is highly probable that Prisoner A would

have contracted some other infection or simply wasted away due to his underlying cancer state regardless of the hygiene state within the prison within days or weeks (but probably not months).

I still do not think the medical centre staff, or indeed the acute hospital could have done more to prevent the pneumonia of his death."

SECTION 4: THE INVESTIGATION OF PRISONER A'S DEATH

5. Joint Investigation with the Health and Safety Executive

As the primary cause of the death of Prisoner A was recorded as Legionnaire's Disease, the Health and Safety Executive for Northern Ireland initiated its own investigation into Magilligan Prison. It was agreed that the Health & Safety Executive would take the lead in this element of the investigation. A Prisoner Ombudsman investigator was present at interviews.

Legal Requirements in respect of Legionnaires

The Prison Service is required by law to:

- Look for and assess the risks of Legionnaires disease
- Appoint a person to have managerial oversight
- Prepare a plan or a scheme to ensure that the risks are controlled
- To put that plan into action
- To record the action being taken to ensure that they are meeting their legal obligations

Areas of Concern identified in connection with the management of Legionella at Magilligan

The Health & Safety Executive investigation identified the following concerns in connection with the arrangements for

monitoring and managing Legionella prevention at Magilligan Prison:

- The adequacy of arrangements for risk assessment.
- The clarity around roles and responsibilities.
- Staff training.
- Management arrangements for responding to identified risks.
- Quality Assurance.

Since the death of Prisoner A, the Northern Ireland Prison Service have taken action in connection with each of these areas.

Crown Censure

As a result of the findings of the Health & Safety Executive, a meeting was arranged on 8 June 2010 to conduct a Crown Censure.

At the conclusion of the meeting, the Northern Ireland Prison Service was formally censured.

The Northern Ireland Prison Service accepted the Crown Censure but stressed in their submission that they believed that mitigating factors needed to be considered.

Full details of the Health & Safety Executive Northern Ireland findings presented at the meeting were published and are available on the NIPS, Health & Safety Executive and Prisoner

Ombudsman websites. I do not, therefore, propose to duplicate them in this report.

Speaking about Prisoner A, the meeting Chairman said that whilst he accepted that he was an ill man *"I also believe that no one under any circumstances should be exposed to Legionella bacteria and indeed a view could be taken that a very ill man like Prisoner A should have been afforded the highest levels of protection available against any such exposure. He had the right to live as long as possible and when his care was entrusted to the State he should not have been exposed to anything which would have shortened his life in any way."*

APPENDICES

APPENDIX 1

PRISONER OMBUDSMAN FOR NORTHERN IRELAND TERMS OF REFERENCE FOR INVESTIGATION OF DEATHS IN PRISON CUSTODY

1. The Prisoner Ombudsman will investigate the circumstances of the deaths of the following categories of person:

   - **Prisoners (including persons held in young offender institutions). This includes persons temporarily absent from the establishment but still in custody (for example, under escort, at court or in hospital). It excludes persons released from custody, whether temporarily or permanently. However, the Ombudsman will have discretion to investigate, to the extent appropriate, cases that raise issues about the care provided by the prison.**

2. The Ombudsman will act on notification of a death from the Prison Service. The Ombudsman will decide on the extent of investigation required depending on the circumstances of the death. For the purposes of the investigation, the Ombudsman's remit will include all relevant matters for which the Prison Service, is responsible, or would be responsible if not contracted for elsewhere. It will therefore include services commissioned by the Prison Service from outside the public sector.

3. The aims of the Ombudsman's investigation will be to:

- Establish the circumstances and events surrounding the death, especially as regards management of the individual, but including relevant outside factors.
- Examine whether any change in operational methods, policy, and practice or management arrangements would help prevent a recurrence.
- In conjunction with the DHSS & PS, where appropriate, examine relevant health issues and assess clinical care.
- Provide explanations and insight for the bereaved relatives.
- Assist the Coroner's inquest in achieving fulfilment of the investigative obligation arising under article 2 of the European Convention on Human Rights, by ensuring as far as possible that the full facts are brought to light and any relevant failing is exposed, any commendable action or practice is identified, and any lessons from the death are learned.

4. Within that framework, the Ombudsman will set terms of reference for each investigation, which may vary according to the circumstances of the case, and may include other deaths of the categories of person specified in paragraph 1 where a common factor is suggested.

Clinical Issues

5. The Ombudsman will be responsible for investigating clinical issues relevant to the death where the healthcare services are commissioned by the Prison Service. The Ombudsman will obtain clinical advice as necessary, and may make efforts to involve the local Health Care Trust in the investigation, if appropriate. Where the healthcare services are commissioned by the DHSS & PS, the DHSS & PS will have the lead responsibility for investigating

clinical issues under their existing procedures. The Ombudsman will ensure as far as possible that the Ombudsman's investigation dovetails with that of the DHSS & PS, if appropriate.

Other Investigations

6. Investigation by the police will take precedence over the Ombudsman's investigation. If at any time subsequently the Ombudsman forms the view that a criminal investigation should be undertaken, the Ombudsman will alert the police. If at any time the Ombudsman forms the view that a disciplinary investigation should be undertaken by the Prison Service, the Ombudsman will alert the Prison Service. If at any time findings emerge from the Ombudsman's investigation which the Ombudsman considers require immediate action by the Prison Service, the Ombudsman will alert the Prison Service to those findings.

7. The Ombudsman and the Inspectorate of Prisons will work together to ensure that relevant knowledge and expertise is shared, especially in relation to conditions for prisoners and detainees generally.

Disclosure of Information

8. Information obtained will be disclosed to the extent necessary to fulfil the aims of the investigation and report, including any follow-up of recommendations, unless the Ombudsman considers that it would be unlawful, or that on balance it would be against the public interest to disclose particular information (for example, in exceptional circumstances of the kind listed in the relevant

paragraph of the terms of reference for complaints). For that purpose, the Ombudsman will be able to share information with specialist advisors and with other investigating bodies, such as the DHSS & PS and social services. Before the inquest, the Ombudsman will seek the Coroner's advice regarding disclosure. The Ombudsman will liaise with the police regarding any ongoing criminal investigation.

Reports of Investigations

9. The Ombudsman will produce a written report of each investigation which, following consultation with the Coroner where appropriate, the Ombudsman will send to the Prison Service, the Coroner, the family of the deceased and any other persons identified by the Coroner as properly interested persons. The report may include recommendations to the Prison Service and the responses to those recommendations.

10. The Ombudsman will send a draft of the report in advance to the Prison Service, to allow the Service to respond to recommendations and draw attention to any factual inaccuracies or omissions or material that they consider should not be disclosed, and to allow any identifiable staff subject to criticism an opportunity to make representations. The Ombudsman will have discretion to send a draft of the report, in whole or part, in advance to any of the other parties referred to in paragraph 9.

Review of Reports

11. The Ombudsman will be able to review the report of an investigation, make further enquiries, and issue a further report

and recommendations if the Ombudsman considers it necessary to do so in the light of subsequent information or representations, in particular following the inquest. The Ombudsman will send a proposed published report to the parties referred to in paragraph 9, the Inspectorate of Prisons and the Secretary of State for Northern Ireland (or appropriate representative). If the proposed published report is to be issued before the inquest, the Ombudsman will seek the consent of the Coroner to do so. The Ombudsman will liaise with the police regarding any ongoing criminal investigation.

Publication of Reports

12. Taking into account any views of the recipients of the proposed published report regarding publication, and the legal position on data protection and privacy laws, the Ombudsman will publish the report on the Ombudsman's website.

Follow-up of Recommendations

13. The Prison Service will provide the Ombudsman with a response indicating the steps to be taken by the Service within set timeframes to deal with the Ombudsman's recommendations. Where that response has not been included in the Ombudsman's report, the Ombudsman may, after consulting the Service as to its suitability, append it to the report at any stage.

Annual, Other and Special Reports

14. The Ombudsman may present selected summaries from the year's reports in the Ombudsman's Annual Report to the

Secretary of State for Northern Ireland. The Ombudsman may also publish material from published reports in other reports.

15. If the Ombudsman considers that the public interest so requires, the Ombudsman may make a special report to the Secretary of State for Northern Ireland.

16. Annex 'A' contains a more detailed description of the usual reporting procedure.

REPORTING PROCEDURE

1. The Ombudsman completes the investigation.

2. The Ombudsman sends a draft report (including background documents) to the Prison Service.

3. The Service responds within 28 days. The response:

(a) draws attention to any factual inaccuracies or omissions;

(b) draws attention to any material the Service consider should not be disclosed;

(c) includes any comments from identifiable staff criticised in the draft; and

(d) may include a response to any recommendations in a form suitable for inclusion in the report. (Alternatively, such a response may be provided to the Ombudsman later in the process, within an agreed timeframe.)

4. If the Ombudsman considers it necessary (for example, to check other points of factual accuracy or allow other parties an opportunity to respond to findings), the Ombudsman sends the

draft in whole or part to one or more of the other parties. (In some cases that could be done simultaneously with step 2, but the need to get point 3 (b) cleared with the Service first may make a consecutive process preferable.)

5. The Ombudsman completes the report and consults the Coroner (and the police if criminal investigation is ongoing) about any disclosure issues, interested parties, and timing.

6. The Ombudsman sends the report to the Prison Service, the Coroner, the family of the deceased, and any other persons identified by the Coroner as properly interested persons. At this stage, the report will include disclosable background documents.

7. If necessary in the light of any further information or representations (for example, if significant new evidence emerges at the inquest), the Ombudsman may review the report, make further enquiries, and complete a revised report. If necessary, the revised report goes through steps 2, 3 and 4.

8. The Ombudsman issues a proposed published report to the parties at step 6, the Inspectorate of Prisons and the Secretary of State (or appropriate representative). The proposed published report will not include background documents. The proposed published report will be anonymised so as to exclude the names of individuals (although as far as possible with regard to legal obligations of privacy and data protection, job titles and names of establishments will be retained). Other sensitive information in the report may need to be removed or summarised before the report is published. The Ombudsman notifies the recipients of the intention to publish the report on the Ombudsman's website after 28 days, subject to any objections they may make. If the proposed

published report is to be issued before the inquest, the Ombudsman will seek the consent of the Coroner to do so.

9. The Ombudsman publishes the report on the website. (Hard copies will be available on request.) If objections are made to publication, the Ombudsman will decide whether full, limited or no publication should proceed, seeking legal advice if necessary.

10. Where the Prison Service has produced a response to recommendations which has not been included in the report, the Ombudsman may, after consulting the Service as to its suitability, append that to the report at any stage.

11. The Ombudsman may present selected summaries from the year's reports in the Ombudsman's Annual Report to the Secretary of State for Northern Ireland. The Ombudsman may also publish material from published reports in other reports.

12. If the Ombudsman considers that the public interest so requires, the Ombudsman may make a special report to the Secretary of State for Northern Ireland. In that case, steps 8 to 11 may be modified.

13. Any part of the procedure may be modified to take account of the needs of the inquest and of any criminal investigation/proceedings.

14. The Ombudsman will have discretion to modify the procedure to suit the special needs of particular cases.

APPENDIX 2

PRISON SERVICE POLICIES

A summary of Prison Service policies and procedures relevant to the investigation into Prisoner A's death are available from the Prisoner Ombudsman's Office on request.

Death in Custody Contingency Plan

27. The Death in Custody Contingency Plan provides step by step guidance for all staff in connection with the death of a prisoner in custody.

Prison Rules

28. Rule 12 of the Prison and Young Offenders Centres Rules (Northern Ireland) 1995 provides:

> *"**12**(1) The Governor shall take all practical steps to ensure the cleanliness and hygiene of all parts of the prison in which prisoners, officers and other staff live, work, or otherwise have reason to be.*
> *(2) To this end the Governor shall consult with the medical officer and with the authorities responsible for environmental health and for health and safety at work.*
> *(3) The Governor may grant reasonable facilities to authorised officers of those authorities under paragraph (2) for the inspection of those parts of the prison in which they have a proper interest."*

29. Rule 29 deals with the death or serious illness of prisoner:

29. *–(1) If a prisoner dies, becomes seriously ill, sustains any severe injury or is removed to hospital, the governor shall, if he knows the address, at once inform the prisoner's next-of-kin, and also any person the prisoner may reasonably have asked should be informed.*

(2) If a prisoner dies, the governor shall immediately notify the coroner having jurisdiction, the board of visitors and the Secretary of State.

(3) If a prisoner dies, the medical officer shall record and report to the governor and the chief medical officer –

(a) when the deceased was injured or taken ill;

(b) the time at which he was first told of the injury or illness;

(c)the nature of the injury or disease;

(d)when the prisoner died;

and in cases where a post-mortem examination is made, the medical officer shall report on its findings and make any observations which he considers appropriate.

30. Rule 80 deals with medical provision with prison:

*"**80.** At every prison a separate building or a suitable part of the prison shall be equipped, furnished and staffed in a way appropriate to the medical care and treatment of sick prisoners."*

Crown Censure in the case of

Prisoner (Name redacted) (deceased)

IN THE MATTER OF A CROWN CENSURE

Between

Health and Safety Executive for Northern Ireland

And

Northern Ireland Prison Service

Record of Crown Censure of HM Prison Service by HSENI

Concerning a Breach of Article 5 of the Health and Safety At Work

(Northern Ireland) Order 1978 and other Regulations

Following the death of Prisoner (Name redacted) on 8 February 2007

Attending:

Pat Lyons (Chairman)

Louis Burns (Investigating Inspector)

Robin Maesfield (NIPS - Director General)

Dr Tony McGleenan (BL – Barrister acting for NIPS)

Bronagh McCart (Crown Solicitors Office – Solicitor acting for NIPS)

Philip McAteer (BL - Barrister acting for DFP)

Annette Fitzpatrick (Departmental Solicitors Office - Solicitor acting for DFP)

<u>Observers</u>

Brian Monson (HSENI – Deputy Chief Executive)

Cyril Anderson (HSENI – Principal Inspector)

(Name redacted) (NIPS – Governing Governor HMP Magilligan)

(Name redacted) (NIPS – Head of Prison Estate Management)

(Name redacted) (Acting Director, Finance & Corporate Services)

(Name redacted) (DFP)

(Name redacted) (DFP)

1. Good morning everyone. I am Pat Lyons, a HSENI Board member.

2. Firstly I ask Mr Burns to outline the domestic arrangements.

3. To start with I will introduce the officials here today from the HSENI - Louis Burns (Investigating Inspector) and Brian Monson (HSENI – Deputy Chief Executive) and Cyril Anderson (Principal Inspector).

4. In the absence of Mr Maesfield I ask Mr (Name redacted) of the NI Prison Service to introduce the

officials and representatives from the Northern Ireland Prison Service.

5. I now ask Mr (Name redacted) to introduce the officials and representatives from the Department of Finance and Personnel.

6. The purpose of the meeting is to conduct a Crown Censure. I have had no dealings in either the investigation or the subsequent approval of arriving here today.

7. Crown bodies <u>are</u> bound by the same law as other organisations but HSENI cannot take proceedings

under the Health and Safety at Work Order against crown bodies and this is known as crown immunity.

8. Today's procedure allows us to call to account crown bodies, both where it is the belief of HSENI that, but for crown immunity, there would be sufficient evidence to make a reasonable prospect of conviction in a criminal court. The term Crown Censure relates to the formal recording of any HSENI decision. The meeting today has been carried out in accordance with the HSENI's Enforcement Policy Statement.

9. The parties have been invited to come to this hearing and give their evidence. I would emphasise this isn't a trial and no witnesses will be called and therefore there will be no cross examinations etc. I will make every effort during this hearing to ensure fair consideration of the matters at issue, but it is not possible for a Censure hearing to have all the checks and balances of a Court.

10. HSENI has provided NI Prison Service with advance information of the case in exactly the same way that we would if this was a PE hearing in the Magistrates Court and a subsequent trial in the Crown Court. As a consequence, the NI

Prison Service has had the opportunity to respond in advance of today's hearing.

11. If at the end of the proceedings what I've heard confirms that there would have been a realistic prospect of conviction in the court, if it were a matter that could be put before the courts, then there will be a formal censure.

12. The NI Prison Service will then be required to brief the Permanent Secretary of the Northern Ireland Office and the Secretary of State for Northern Ireland. In addition the Censure will be put on the HSENI website as a matter of public record. Given the recent

changes in Northern Ireland you may also need to brief the Minister responsible for the Department of Justice but a full briefing must also be given the Secretary of State for Northern Ireland who had responsibility for prisons at the relevant time.

13. In this particular Censure I will allow a submission to be heard on behalf of DFP, although that organisation is not be Censured.

14. I now call on Mr Burns to provide this Censure hearing with the findings of the HSENI investigation.

HSENI INVESTIGATION FINDINGS AND LEGAL REQUIREMENTS (Presented by Mr Louis Burns - Principal Inspector of Health & Safety – Major Investigation Team)

15. This censure is about a breach of Article 5 of the Health and Safety at Work (NI) Order 1978 (hereafter referred to as the Order) and a number of breaches of other relevant statutory provisions. By virtue of Article 5 of the Order every employer is under a duty so far as is reasonably practicable to ensure the health, safety and welfare of all persons not in their employment who may be affected thereby. The duty under the law is imposed on the employer himself and cannot be delegated to a manager, an employee

or another independent person. The duty to ensure the health and safety of the workforce remains with the employer. These duties extend to risks from biological agents including the legionella bacterium. The Northern Ireland Prison Service (hereafter referred to as NIPS) was under a duty to ensure so far as was reasonably practicable, that inmates and other persons within the prison, were not exposed to the risk from legionella bacteria associated with their water systems.

16. I have compiled a report and interviewed a number of people associated with the management of the water system in the Healthcare Centre at HMP Magilligan and collected numerous documents during

the course of this investigation. These have been provided to the NIPS in a bundle. This Censure follows the death of Prisoner (Name redacted) on 8 February 2007 who died at the Causeway Hospital on 8 February 2007. A urine sample was taken at the Causeway Hospital because it appeared he was not responding to a course of antibiotics. An antigen is a foreign particle that enters the body. This could be a disease causing agent such as part of a bacterium or in this case the Legionella bacterium. The presence of an antigen associated with the presence of legionella was detected in this urine sample. In his post-mortem report the State Pathologist confirmed the PRIMARY cause of death to be Legionnaire's Disease. The strain of legionella found in the water

system in the Healthcare Centre at HMP Magilligan was the exact same subgroup which was present in Prisoner (Name redacted)’s lung at autopsy.

17. The incubation period between exposure to legionella bacteria and the onset of legionnaires disease is between two and ten days. At the time he was a sentenced prisoner incarcerated at HMP Magilligan. The prisoner had been housed in the Healthcare Centre at HMP Magilligan for some time prior to his death, this period being greater than a year. The prisoner was not housed in any other part of the prison during this period and HSENI understands he would have spent the vast majority of his time in the Healthcare Centre. On 29 January

2007 the prisoner was transferred to the Causeway Hospital. HSENI has been informed this was because of his deteriorating condition and a low white blood cell count. HSENI understands that around this time the prisoner had pneumonia and that he was not reacting to a course of treatment. The prisoner died at the Causeway Hospital on 8 February 2007.

18. After the death of Prisoner (Name redacted) a Dr Richard Smithson, consultant in communicable disease control with the WHSSB held a series of meetings to consider the potential for other inmates and staff to become infected. A representative from Limavady Borough Council took a series of water samples. These water samples were sent for analysis

at the Public Health Laboratory based at Belfast City Hospital. When the results of the water samples were available to HSENI, a Crown Prohibition Notice was served on the NIPS in regard to the water system at the Healthcare Centre at HMP Magilligan.

19. In any event the NIPS had started to take remedial action which included the removal of staff and prisoners from the facility. The Service was also working closely with a private water treatment company to put in place measures to drain, clean and ensure the ongoing safety of the water system at the facility. These measures were taken swiftly and were personally overseen by the most senior Governor at HMP Magilligan. The scale of this task was

considerable and the willingness of local HMP Magilligan management and staff to undertake the necessary measures was commendable.

20. The samples of water were taken from the Healthcare Centre at HMP Magilligan after Prisoner (Name redacted)’s death and unacceptably high levels of the legionella pneumophila serogroup 1, subgroup “Bellingham” were present in the water samples. The prisoner had used the bath in a separate room adjacent to his room for washing for at least the period of a year before he died. It is not possible to give the exact frequency of how often he took baths. He also had a small sink with a cold and hot tap in his room which he was free to use as he

needed. It is known that he had, with assistance of staff, taken a shower in the Healthcare Centre prior to leaving the facility to go to hospital.

21. As previously stated, following diagnosis, some immediate action was taken by the NI Prison Service. A total of eleven samples of water were taken from the Healthcare Centre by an Environmental Health Officer from Limavady Borough Council. Every one of these water samples confirmed the presence of one strain of legionella bacteria in the water system, that being subgroup Bellingham. The results of the samples range from 700 to 40,000 with an average of 6736. Of the eleven sources sampled, the results of ten were greater than 1000 colonies per litre. The

sample returns from the Public Health Laboratory deems these ten samples to have levels which were “unacceptable”. The one sample which was less than 1000 colonies per litre (700) was deemed to be “unsatisfactory”. Just to put that into context, the guidance about legionella says that a higher level than 100 colonies per litre is the first action level, above which resampling of the system should take place to check those results. Exceeding the second action level of 1,000 colonies per litre should trigger an immediate review of the control measures, and the risk assessment to identify further action. It should be noted that the results in the Doctor’s Office Hot Tap was nine and a half times the second action level in

the guidance whilst Room 10 Slop Sink Hot Tap was forty times the second action level in the guidance.

22. The healthcare centre is located within the outer prison wall and is a stand alone unit. HSENI understands around January 2007 the centre had ten beds, four used by orderlies, four by inpatients, and two by prisoners requiring observation. Other prisoners between the ages of 18 to 80 could use the centre as and when required. Prisoner (Name redacted) had been housed in the centre for some time prior to January 2007 for medical reasons. The centre was made up of a number of Second World War Nissen huts. At the time the buildings were dated and in need of refurbishment. It was noted during

HSENI’s visits that the rooms were often very warm and stuffy with poor ventilation.

23. Legionella is a bacteria that is known to grow in certain conditions. In particular it grows in water temperatures above 20^{o}C and below 45^{o}C so within those conditions it is able to grow and multiply rapidly. It also grows in the presence of sediments, sludge, scale, rust or other material in tanks or storage systems. In certain types of water fittings, taps, shower heads and pipework and where algae and other bacteria are allowed to grow, then legionella can be found in large numbers as well. Where there is a biofilm, which is like a scum or a

visible film on the water, then it is possible that legionella may be found.

24. The presence of any legionella bacteria sub-group is a clear indication that the environmental conditions in the system are right for legionella to flourish and multiply. The absence of other sub-groups in samples does not mean that they could not appear if there was a slight change in the environmental conditions.

25. The Healthcare Centre was supplied by a single cold water storage tank located in a nearby boiler house. This tank supplies two calorifiers and down services in the Healthcare Centre.

26. An examination of the cold water storage tank shortly after the death of Prisoner (Name redacted) found that the tank lining was showing signs of failure as there was bubbling and small holes evident. There was also some debris in the tank base and biofilm on the tank sides. This would suggest that the tank had not been properly cleaned for some time. Legionella bacteria also require a supply of nutrients to multiply. Sources can include sediment, sludge, scale and other material within the system, together with biofilms, which are also thought to play an important role in harbouring bacteria and providing favourable conditions in which legionella may grow. Such biofilms, sludge and scale can protect legionella

bacteria from temperatures and concentrations of biocide that would otherwise kill or inhibit these organisms if they were freely suspended in the water. In other words the conditions found in the cold water storage tank would be associated with the harbouring and, in the correct conditions, the proliferation of Legionella bacteria.

27. The survey carried out after the death of Prisoner (Name redacted) found that the two modern industrial combined oil fired boilers and calorifiers linked in parallel, which were located in the boiler room were only set at 52^{o}C with a return temperature of 47^{o}C due to the risk of scalding. These calorifiers did have destratification and recirculation pumps fitted. It is

recommended that where there are more than one calorifier and if temperature is a means of control then each should deliver a water temperature of at least 60^{o}C.

28. The report went on to state that many outlets on long spurs did not reach 50^{C} in 1 minute. Again this would be a situation which could permit the proliferation of Legionella.

29. Within the Healthcare Centre there was little or no evidence of the hot water pipes being insulated and again many of these pipes were surface mounted. In

many cases the hot and cold water pipes were in very close proximity to each other.

30. Again in the Healthcare Centre there were areas of stagnation (blind ends) identified within the water distribution system(s). In some cases these were in surface pipework and were visible without any need to carry out any intrusive searching. Areas where water can stagnate allow for the growth and proliferation of Legionella bacteria.

31. Where water droplets can be generated, legionella bacteria infecting the water can be inhaled deep into the lungs and this is what causes legionellosis which

is common known as legionnaires disease. This means that showers are a particular risk as they generate a fine spray or aerosol into the air. There was a risk of exposure to legionella bacteria to inmates and others in the Health Unit.

32. It is submitted that Prisoner (Name redacted) contracted the disease as a direct result of exposure to legionella bacteria within the water system in the Healthcare Centre at HMP Magilligan.

33. L8 is the “Approved Code of Practice on the Control of Legionella Bacteria in Water Systems”. This applies to the control of legionella bacteria in any

undertaking where water is used and where water droplets may potentially be inhaled. It provides practical guidance on how duty holders can comply with the law and the standards that must be met for dealing with this risk. This ACoP applies wherever water is stored and used at work in a way that could create a foreseeable risk of legionellosis.

34. Hot and cold water systems do present a reasonably foreseeable risk of exposure to legionella bacteria and as such they are subject to these requirements.

35. The Code of Practice states that you should have a written scheme produced to properly manage the risk of exposure to legionella. The scheme should include an up to date plan showing the layout of the hot and cold water system including in particular any parts temporarily out of use. It should have a description of the correct safe operation of the system; what precautions should be taken; the checks to be carried out to ensure the system is safe and how often; and any remedial action to be taken if necessary. Records should also be kept of any of these checks and tests and appointed persons responsible for managing the risks should also be recorded. The NI Prison Service arguably had a scheme to manage legionella through the use of a sub-contractor chain but at the time of

the death of Prisoner (Name redacted) it did not have an up to date plan showing the layout of the hot and cold water system including in particular any parts temporarily out of use.

36. HSENI was given a copy of a risk assessment of the water system in the Healthcare Centre dated 6 March 2002. This document is difficult to understand and does not provide the reader with a clear, easy to understand analysis of the water system. It is HSENI's view that the format of this risk assessment would only be meaningful to persons who had been trained on, and had a knowledge of, the system on which it was based. No persons within the maintenance section of either HMP Magilligan or

Prison Estates Management had received specific training on the (Name redacted)(private contractor) system. It is also worth noting that the main co-ordinator within DFP had never been on, or encouraged to go and look at, the HMP Magilligan site.

37. The risk assessment appears to have got a number of significant details wrong. It indicates that there are no blind ends. There were clearly blind ends which were visible in the Healthcare Centre. It also states that the pipes in the distribution system are insulated. This was not the case. As the co-ordinator in DFP had never been on the site he could not have been expected to be able to contradict such findings. The

only people who could have spotted these major errors were NIPS employees.

38. The risk assessment also states that there is a high potential for aerosol generation, there is the potential for exposure of susceptible groups. It also states that the ability of site staff to control the risk was okay and that they had “access to relevant information and expertise”. It also states that the biofilm control is not monitored. This assessment states, “no drawing or drawing not able to be produced during assessment”.

39. HSENI was also given a copy of the next risk assessment dated June 2005. Again it indicates

that there are no dead legs. This time the assessment states that the “system is inadequately insulated” but then in the summary sheet of the assessment it indicates that the pipes in the distribution system are insulated. Again it states that the pipes in the cold and hot water system do not run close to each other when this is clearly not the case. Other matters raised include, “supply/return <50^{o}C”; “biofilm control is not monitored”. Unlike the 2002 assessment, this assessment indicates that drawings were able to be produced during assessment. Such drawings were not available to HSENI until some time after the death of Prisoner (Name redacted).

40. On the summary sheet it records the temperature of the nearest outlet on the hot water system as 48.2^{o}C and the furthest (sentinel) outlet as 29.9^{o}C. These temperatures should not be below 50^{o}C at the lowest. 29.9^{o}C is dangerously low.

41. The above evidence raises a question about the quality of the risk assessments carried out in 2002 and then in 2005 although these pre-date the relevant period associated with Prisoner (Name redacted)’s death. Some very obvious errors or oversights seem to have been made. These documents are at best confusing and difficult to understand especially bearing in mind that no

personnel in the NI Prison Service had received training on the assessment system.

42. These risk assessments were neither suitable nor sufficient as required by the law. They did not include a proper schematic diagram of the water system to actually show the layout. A schematic is a way of checking whether there are any dead legs in the system - any areas where water may be left to stagnate. It should identify little used outlets - areas where the water isn't regularly flushed through by normal use and therefore where the hazard might be greater. The absence of a schematic of the water system was an obvious unexplained omission.

43. The private contractor was contacted as part of this investigation and HSENI have received replies. The personnel involved in the risk assessments of 2002 and 2005 no longer work for the company. The private company stated that one possible reason was the fact that access may have been limited to the inspectors given the nature of the premises. This investigation has not found any information to back up this claim. HSENI have been assured by the HMP Magilligan estates personnel that this would not have been an issue in any area of the prison and most definitely not an issue in the healthcare centre.

44. The private company, through its solicitors, also suggested that prisoners may have removed the insulation from some pipework to eat it in order to get admitted to the medical centre and that this had led to all the insulation being removed. HSENI has not found any evidence to back up this suggestion. It also appears illogical as the insulation in question would be in the healthcare centre and not generally available to prisoners who resided in the main prison. Indeed, had this not been written by a solicitor it would have been a laughable suggestion.

45. It is clear that the private company who carried out the quarterly visits and the 2002 and 2005 risk assessments made major errors in the way they

carried out their work. That said, the fact remains that the duty in law to carry out a suitable and sufficient risk assessment in this case rested with the NIPS and no other party in relation to the water system in the HMP Magilligan Healthcare Centre. It is clear from the evidence that a suitable and sufficient risk assessment was not carried out in relation to the water system in question prior to the death of Prisoner (Name redacted).

46. The investigation found that for the period leading up to the death of Prisoner (Name redacted) and the subsequent discovery of legionella bacteria at dangerously high concentrations in the water system in the

Healthcare System at HMP Magilligan that throughout the entire management chain, both inside and outside the NI Prison Service, that there was an almost complete lack of training or understanding about the management of legionella. This was not an acceptable situation and ultimately meant that no one in the system was well enough informed to spot obvious errors in the work of the sub-contractor.

47. The person who had responsibility for managing legionella throughout the NI Civil Service Estate, a DFP employee, described his knowledge as follows, “When I was given responsibility for the management of legionellosis throughout the NICS

estate I had received no formal training but I had a basic, self-taught, knowledge. After this I attended a one-day course run by the Institute of Building Services Engineers in London on legionella. This one-day course was more of a general overview of the subject area and although we were provided with a copy of L8 there was no in-depth training given on the content of this document. I attended another one day course organised by (Name redacted) (DFP), again this was a general overview". As previously stated this person was never on the HMP Magilligan site and would not have been in a position to spot some of the obvious errors. This again was unacceptable in terms of the management of legionella and in terms of

governance on behalf of the NIPS would fall short of what would be required.

48. The person who had responsibility for receiving the reports and remedial work requirements within PEM described his knowledge of managing legionella as follows, “In relation to legionella I attended a one-day course in London with CIBSE. I have also studied a lot of legionella material and would describe myself as proficient. I cannot recall any training in legionella which was given to me by NIPS. I was invited by DFP to attend a one day awareness event run by (Name redacted)(private contractor) at the Waterfront (date redacted) but I was unable to attend. I have never received any

training on the (Name redacted)(private contractor) system or how to interpret their results. I have a good knowledge of hot and cold water systems but this is from my training as a mechanical design engineer, not from a legionella perspective”.

49. The person who previously held this post at Estate Management described his knowledge of legionella as follows, “I have not had any training in legionella, in fact there was nothing done about it really, it wasn’t pushed. It was in PEM [Prison Estate Management] that I got my first hands on experience in legionella”.

50. The personnel with estate management responsibility based at HMP Magilligan had not received any training and had no experience in the management of legionella prior to the death of Prisoner (Name redacted).

51. This almost complete absence of competent management is inexcusable in relation to a known risk in an establishment where it was clearly known that an at risk population lived almost 24 hours a day, seven days a week.

52. The management system for generating work instructions to carry out the control measures identified was ineffective and there was no

procedure and no checks to ensure that the work that was supposed to be done was ever actually done. There did not seem to be clear direction available to site personnel as to who to choose when selecting contractors to do this type of work. HSENI believes that where the Estates personnel at HMP Magilligan were instructed to get work done the work was completed. Having said this there was a fundamental problem in that no personnel on site had been given training on how and what to look for in order to verify the quality of the work being carried out. The responsibility for assessing and managing these risks is not only spelt out in the Code of Practice. As a minimum the NI Prison Service should have documented who was the

person appointed to oversee the assessment and implementation of precautions for legionella. HSENI would expect this to be a manager with sufficient authority and be properly trained and competent to fulfil that role.

53. The implications of contracting legionnaires disease are very serious and potentially fatal as was the case with Prisoner (Name redacted). Twelve percent of people with the disease have died and survivors who do not die from the disease can experience ongoing chest problems, reduced lung function in the longer term and they may also suffer from mental health problems, memory loss

and psychological damage so we are talking about a serious health effect.

Conclusions from HSENI Investigation

54. So in conclusion, the investigation showed that Prisoner (Name redacted) contracted legionnaires disease as a result of exposure to bacteria from the water system at the Healthcare Centre at HMP Magilligan.

55. The previous risk assessments of 2002 and 2005 were unsuitable and insufficient.

56. The managerial arrangements for controlling the risk were inadequate.

57. In our view the NI Prison Service has therefore failed to discharge the duty under Article 5 of the Health and Safety at Work Act in the period before 8 February 2007 in that they failed to ensure so far as is reasonably practicable, that persons not in their employment who may be affected, were not exposed to the risk from legionella in the hot and cold water system in the Healthcare Unit at HMP Magilligan.

58. The NI Prison Service has therefore failed to discharge the duty under Regulation 3(1)(a) of the Management of Health and Safety at Work Regulations (Northern Ireland) 2000 - Every employer shall make a suitable and sufficient assessment of the risks to the health and safety of his employees

to which they are exposed whilst they are at work for the purpose of identifying the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions.

59. Following submissions from Dr McGleenan on behalf of NIPS, HSENI has not proceeded with a number of other breaches as there would have been a strong element of duplication amongst those.

CHAIRMAN

60. I now call on Dr McGleenan to provide this hearing with the responses on behalf of the Northern Ireland Prison Service.

THE RESPONSES AND MITIGATION PRESENTED ON BEHALF OF THE NORTHERN IRELAND PRISON SERVICE ARE LEGALLY PRIVILIGED

CHAIRMAN

61. I now call on Philip McAteer to provide this hearing with the responses on behalf of DFP Properties Branch.

THE RESPONSES PRESENTED ON BEHALF OF THE DEPARTMENT OF FINANCE AND PERSONNEL (PROPERTIES MAINTENANCE BRANCH) ARE LEGALLY PRIVILIGED

QUESTIONS FROM THE CHAIR

(Pat Lyons – Chairman)

62. I have a number of questions I want to ask before I bring proceedings to a conclusion.

HSE CLOSING COMMENTS

(Pat Lyons – Chairman)

63. Thank you Mr Maesfield for an acceptance of the responsibility of the Northern Ireland Prison Service for the incident and in particular the admission that if NIPS did not have the protection from prosecution afforded by Crown Immunity in relation to health and safety offences that a prosecution based on Article 5(1) of the Health and Safety at Work (NI) Order and Regulation 3(1)(a) of the Management of Health and Safety at Work Regulations (NI) 2000 would be likely to succeed. That is appreciated.

64. HSENI accepts that this wasn’t a case of not having any system, it was a case of having a safety management system which wasn’t effective, though we do fully accept that it wasn’t a completely threadbare system of management. HSENI also acknowledges that you had engaged the services of third parties to essentially run the management of legionella. Whilst this is a common strategy employed by many organisations I believe that this case has highlighted that it is vital that an in-house “on the ground” knowledge must also be present to compliment the activities of external service providers. If for no other reason they should be there to hold these people to account and verify the quality of their work. HSENI takes the points you made in

your submission on board. However, I think the significant point here is that the number of failings came together at the Healthcare Centre at HMP Magilligan in January / February 2007 and the end result was one inmate, Prisoner (Name redacted) did contract legionnaires disease. I accept your point that Prisoner (Name redacted) was an ill man. That is inescapable I think. I also believe that no one under any circumstances should be exposed to legionella bacteria and indeed a view could be taken that a very ill man like Prisoner (Name redacted) should have been afforded the highest levels of protection available against any such exposure. He had the right to live as long as possible and when his care was entrusted to the State he should not have been

exposed to anything which would have shortened his life in any way.

65. The potential for legionella to contaminate both hot and cold systems was foreseeable. It is known quite widely and it is certainly documented in the well known and long standing Code of Practice which we've heard about. The prison authorities should have known about the potential risk for a number of years and should have had the available guidance on risk assessment and on control. However despite this there was a failure to manage the risk of legionella in the Healthcare Centre at HMP Magilligan as seen in the water sample results.

66. In addition I highlight the failings of the risk assessment and in particular the lack of the schematic diagram which really made life extremely difficult if not impossible, I think, to have an adequate system in place.

67. It’s the HSENI’s view that the standard did fall far below the appropriate standard for a prison and the risk assessment and water management system did not comply with the Approved Code of Practice so I’m convinced that what we’ve heard this morning demonstrates that the Northern Ireland Prison Service did not comply with Article 5 of the Health and Safety at Work (Northern Ireland) Order 1978 as

well Regulation 3(1)(a) of the Management of Health and Safety at Work (NI) Regulations 2000.

68. I think it is fortunate that no other persons were affected in the HMP Magilligan Healthcare Centre. I'm satisfied that the evidence would have been sufficient to provide a realistic prospect of conviction in a criminal court had that option been open to HSENI.

69. Finally, I formally Censure Northern Ireland Prison Service, and then require that Northern Ireland Prison Service prepare a briefing for ministers.

70. As the Chairman of this Crown Censure hearing and on behalf of HSENI I want to put on record my condolences to the family of Prisoner (Name redacted).

71. That brings this Censure hearing to a close.

TIMETABLE

10:00 - 10:15	Coffee
10:15 -	Chairman opens Censure Hearing
	Investigating Inspector's report
	Replies from NIPS
	Replies from DFP
	Questions
	Chairman's closing remarks