

May 26, 2009

Chris Dunham
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Nancy Dunham
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BEFORE THE STATE ENGINEER OF THE STATE OF UTAH

In RE: Application for Permanent Change:
of Water (a35402) on water right 89-74 :
by Chris Dunham and Nancy Dunham : **PROTEST**
In Emery County :

I. Introduction

We, Chris Dunham and Nancy Dunham, filing jointly, hereby protest change application a35402 filed by the Kane County Water Conservancy District (the "District") to relocate the point of diversion on 29,600 acre-feet of water from Lake Powell to near Green River, Utah.

II. Protesting Party

We reside at separate addresses in Green River, Utah, and together hold several water rights. Water rights 92-74, 92-74, and 92-87 belong to Chris Dunham and are located upstream of the proposed point of diversion in application a35402. Water right number 92-275 belongs to Nancy Dunham and is located south of the proposed point of diversion. We use the water for farming & we are worried about radiation contamination.

Legal Framework

Is there unappropriated water in the source?

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The water right of 29,600 acre-feet is proposed to be transferred from Lake Powell to Green River. This transfer should not be allowed to happen for 100% of the appropriated water. The Green River is only one river that flows into Lake Powell. Other rivers flowing into Lake Powell, including the Colorado and the San Juan, make up about 60% of the water in Lake Powell. Therefore, only 40% of the water right on Lake Powell (or only 11,840 acre-feet of the total 29,600 acre-feet) should be allowed to be transferred upstream along the Green River. The remaining 17,760 acre-feet should have to be newly appropriated in a brand new application. If the water right is not scaled down appropriately, then the State Engineer should first investigate as to whether there are 17,760 acre-feet of unappropriated water in the Green River at the town of Green River to make up the difference; if not, then the application should be rejected for the reason that there would not be "unappropriated water in the proposed source." Utah Code Ann. §73-3-8 (1) (a) (i).

Water rights could be impaired

The water rights owned by Nancy Dunham are located downstream of the proposed point of diversion. Under Utah law, an application "will not impair existing rights." Utah Code Ann. §73-3-8 (1) (a) (ii). There is no information in the application to indicate when the proposed power plant would take more or less water throughout the year, or if the withdrawal would be steady over the year. Without such information, there is concern that existing water rights could be impaired, especially during times of lower-than-normal flow. Additionally, there is a statement in the application that the water "may be 100% depleted"; this indicates that some water could be returned. If water may be returned from the power plant, the point of return as well as the character of the

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water returned should be described. Finally, if flows in the Green River continue to decrease, it is not clear that all pre-existing water rights, including those upstream, plus minimum flows recommended to protect endangered fish, can be maintained if this application were to be approved; this should be studied in detail before being approved.

Interference with a more beneficial use

Utah law states that "the proposed use will not ...interfere with the more beneficial use of the water." Utah Code Ann. §73-3-8 (1) (a) (ii). A nuclear power plant consuming water in the second driest state in the nation does not make sense. There are many ways to produce power, and nuclear consumes more water than almost all of them (See Appendix A, pg. 8). For example, nuclear power in Arizona consumes 785 gallons per Megawatt-hour (MWh), whereas natural gas combined cycle only uses 195 gallons per MWh. In other words, the same amount of water provides for four times as much energy when using natural gas combined cycle as compared to using nuclear.

Geothermal power, thought to be an abundant resource in Utah, uses less than 5 gallons per MWh.

Given that there are far less water-intensive ways to produce electricity to meet the needs of the public, nuclear power as a proposed use of the state's finite allocation of Colorado River water would appear to be a far less beneficial use than providing for the public's domestic needs for drinking water and growing food. Therefore, the application should be found to "interfere with the more beneficial use" and be rejected.

Will it be detrimental to the public welfare?

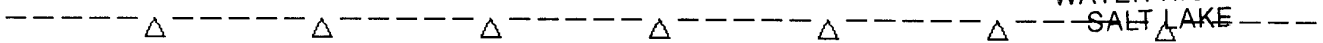
The proposed nuclear power plant could prove to be "detrimental to the public welfare."

Utah Code Ann. §73-3-8 (1) (b) (i).

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Even during normal operation, nuclear power plants emit permitted levels of radiation. Nuclear power plants routinely emit radionuclides both to air and water. While they emit this radiation at permitted levels, no exposure to radiation is considered safe. The District should provide the types, amounts, and concentrations of radionuclides to be emitted and indicate whether liquid discharges would be returned to the Green River or evaporated in cooling ponds or dealt with in some other way.

Additionally, tritium leaks have occurred at several US nuclear power plants, including Braidwood, Byron, Dresden, Palo Verde, and Indian Point. Given that, the District should describe if there are groundwater pathways that would permit tritiated water to migrate from below the nuclear power site into the Green River, or into other groundwater areas that could affect drinking water.

A catastrophic accident at the proposed plant could potentially endanger not only residents in the immediate vicinity of the nuclear reactor, but everyone living downstream who relies on the Colorado River for drinking water, irrigation, and recreation. Given that there are other ways of producing electricity, the proposed power plant poses unique risks and threats to the public welfare that should be carefully considered and investigated before being approved. Utah Code Ann. §73-3-8 (1) (b) (i). Finally, the Nuclear Regulator's radiation exposure limits are established for "reference man," a hypothetical 20 to 30 year old Caucasian male, and thus may inadequately protect women and children, who are often most at risk. A 2007 study commissioned by the German government found that children living in close proximity to German nuclear power plants had higher leukemia rates than the general population (see Appendix B).

The authors did *not* demonstrate that the nuclear power plants actually *caused* the

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increased incidence of childhood leukemias; in fact, they do not know what caused it. But such a scenario should at least be considered when evaluating the impact of the proposed use on the public welfare.

III. Hearing

We respectfully request a hearing on change application a35402 relating to water right 89-74.

IV. Conclusion

We request that the change application a35402 be rejected. Thank you for considering this protest.

Sincerely,

Chris Dunham

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